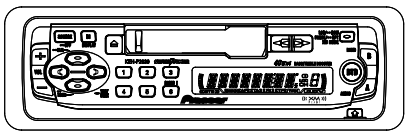
Pioneer sound.vision.soul

Service Manual



KEH-P2030/XM/UC

ORDER NO.
CRT2980

MULTI-CD CONTROL HIGH POWER CASSETTE PLAYER WITH FM/AM TUNER

KEH-P2030 XM/UC
KEH-P2035 XM/ES

● **This service manual does not describe the CD test mode.**
For the operations in the CD test mode, refer to the CD player's Service manual.

CONTENTS

SAFETY INFORMATION 2
1. SPECIFICATIONS.....3
2. EXPLODED VIEWS AND PARTS LIST 6
2.1 PACKING.....6
2.2 EXTERIOR 8
2.3 CASSETTE MECHANISM 10
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM ...12
3.1 BLOCK DIAGRAM 12
3.2 OVERALL CONNECTION DIAGRAM.....14
3.3 KEYBOARD UNIT 16
3.4 CASSETTE MECHANISM 18
4. PCB CONNECTION DIAGRAM 20
4.1 TUNER AMP UNIT 20
4.2 KEYBOARD UNIT 24
4.3 CASSETTE MECHANISM 26
5. ELECTRICAL PARTS LIST 27
6. ADJUSTMENT.....31
7. GENERAL INFORMATION 32
7.1 DIAGNOSIS 32
7.1.1 DISASSEMBLY 32
7.1.2 CONNECTOR FUNCTION DESCRIPTION ...33
7.2 PARTS 34
7.2.1 IC.....34
7.2.2 DISPLAY 38
7.3 OPERATIONAL FLOW CHART 39
7.4 CLEANING 40
8. OPERATIONS 41

For details, refer to "Important symbols for good services".

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SAFETY INFORMATION

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

[Important symbols for good services]
In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely.
When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts

Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount.For replacement parts or tools, the prescribed ones should be used.

1. SPECIFICATIONS

● KEH-P2030/XM/UC

General

Power source ..... 14.4 V DC (10.8 – 15.1 V allowable)
Grounding system ..... Negative type
Max. current consumption ..... 8.5 A
Dimensions (W × H × D):
DIN
Chassis ..... 178 × 50 × 155 mm (7 × 2 × 6-1/8 in.)
Nose ..... 188 × 58 × 20 mm (7-3/8 × 2-1/4 × 3/4 in.)
D
Chassis ..... 178 × 50 × 160 mm (7 × 2 × 6-1/4 in.)
Nose ..... 170 × 48 × 15 mm (6-3/4 × 1-7/8 × 5/8 in.)
Weight ..... 1.4 kg (3.1 lbs)
Backup current.....Less than 3 mA

Audio

Continuous power output is 17 W per channel minimum into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.
Maximum power output ..... 40 W × 4
Load impedance ..... 4 Ω (4 – 8 Ω allowable)
Preout max output level/output impedance ..... 2.2 V/1 kΩ
Bass/Treble:
Bass
Frequency ..... 100 Hz
Gain ..... ±12dB
Treble
Frequency ..... 10k Hz
Gain ..... ±12dB
Loudness contour
Low ..... +7 dB (100 Hz), +4 dB (10 kHz)
High ..... +10 dB (100 Hz), +6.5 dB (10 kHz) (volume: –30 dB)

Cassette player

Tape ..... Compact cassette tape (C-30 – C-90)
Tape speed ..... 4.76 cm/sec. (+0.14cm/sec., -0.05cm/sec.)
Fast forward/rewinding time ..... Approx. 100 sec (C-60)
Wow & flutter ..... 0.13 % (WRMS)
Frequency response ..... 30 – 16,000 Hz (±3 dB)
Stereo separation ..... 45 dB
Signal-to-noise ratio ..... 52 dB (IHF-A network)

FM tuner

Frequency range ..... 87.9 – 107.9 MHz
Usable sensitivity ..... 11 dBf (1.1 μV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity ..... 17 dBf (2.2 μV/75 Ω, mono)
Signal-to-noise ratio ..... 58 dB (IHF-A network)
Distortion ..... 0.5 % (at 65 dBf, 1 kHz, stereo)
Frequency response ..... 30 – 15,000 Hz (±3 dB)
Stereo separation ..... 24 dB (at 65 dBf, 1 kHz)
Selectivity ..... 71 dB
Three-signal intermodulation (desired signal level) ..... 47 dBf (two undesired signal level: 100 dBf)

AM tuner

Frequency range ..... 530 – 1,710 kHz (10 kHz)
Usable sensitivity ..... 20 μV (S/N: 20 dB)
Selectivity ..... 50 dB (±10 kHz)

Note

Specifications and the design are subject to possible modifications without notice due to improvements. ■

● KEH-P2035/XM/ES

General

Rated power source ..... 14.4 V DC (allowable voltage range: 12.0 – 14.4 V DC)
Grounding system ..... Negative type
Max. current consumption ..... 8.5 A
Dimensions (W × H × D):
DIN
Chassis ..... 178 × 50 × 155 mm
Nose ..... 188 × 58 × 20 mm
D
Chassis ..... 178 × 50 × 160 mm
Nose ..... 170 × 48 × 15 mm
Weight ..... 1.4 kg
Backup current.....Less than 3 mA

Audio

Continuous power output is 20 W per channel minimum into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.
Maximum power output ..... 45 W × 4
Load impedance ..... 4 Ω (4 – 8 Ω allowable)
Preout max output level/output impedance ..... 2.2 V/1 kΩ
Bass/Treble:
Bass
Frequency ..... 100 Hz
Gain ..... ±12dB
Treble
Frequency ..... 10k Hz
Gain ..... ±12dB
Loudness contour
Low ..... +7 dB (100 Hz), +4 dB (10 kHz)
High ..... +10 dB (100 Hz), +6.5 dB (10 kHz) (volume: –30 dB)

Cassette player

Tape ..... Compact cassette tape (C-30 – C-90)
Tape speed ..... 4.76 cm/sec. (+0.14cm/sec., -0.05cm/sec.)
Fast forward/rewinding time ..... Approx. 100 sec (C-60)
Wow & flutter ..... 0.13 % (WRMS)
Frequency response ..... 30 – 16,000 Hz (±3 dB)
Stereo separation ..... 45 dB
Signal-to-noise ratio ..... 52 dB (IEC-A network)

FM tuner

Frequency range ..... 87.5 – 108.0 MHz
Usable sensitivity ..... 11 dBf (1.1 μV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity ..... 17 dBf (2.2 μV/75 Ω, mono)
Signal-to-noise ratio ..... 58 dB (IEC-A network)
Distortion ..... 0.5 % (at 65 dBf, 1 kHz, stereo)
Frequency response ..... 30 – 15,000 Hz (±3 dB)
Stereo separation ..... 24 dB (at 65 dBf, 1 kHz)

AM tuner

Frequency range ..... 531 – 1,602 kHz (9 kHz)
530 – 1,640 kHz (10 kHz)
Usable sensitivity ..... 20 μV (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)
50 dB (±10 kHz)

Note

Specifications and the design are subject to possible modifications without notice due to improvements. ▣

A

B

C

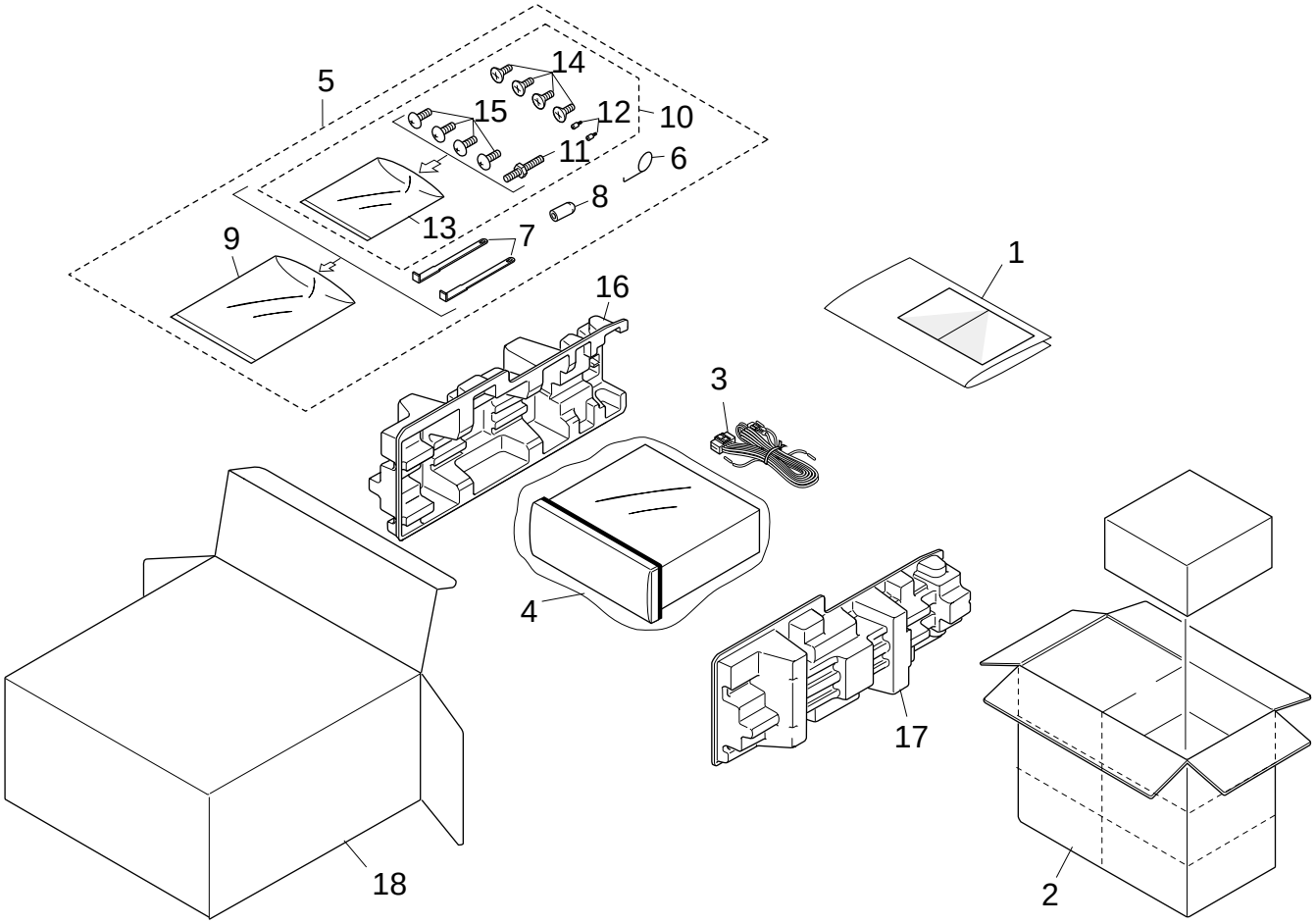
D

E

F

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING



NOTE:

- Parts marked by "*" are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ∇ mark on the product are used for disassembly.
- For the applying amount of lubricants or glue, follow the instructions in this manual.
  (In the case of no amount instructions, apply as you think it appropriate.)

● PACKING(KEH-P2030) SECTION PARTS LIST

Mark	No.	Description	Part No.
*	1-1	Card	ARY1048
	1-2	Owner's Manual	CZR2953
	1-3	Installation Manual	CZR2954
	2	Contain Box	CZH5594
	3	Cord Assy	CZD2976
	4	Polyethylene Bag	CEG1173
	5	Accessory Assy	CZE2954
	6	Spring	CBH1650
	7	Handle	CNC5395
	8	Bush	CNV3930
*	9	Polyethylene Bag	CZE2908
	10	Screw Assy	CZE2952
	11	Screw	CBA1002
	12	Fixing Screw(M2x4)	CBA1488
*	13	Polyethylene Bag	CEG-127
	14	Screw	CRZ50P080FMC
	15	Screw	TRZ50P080FMC
	16	Protector	CZH5592
	17	Protector	CZH5591
	18	Carton	CZH5593

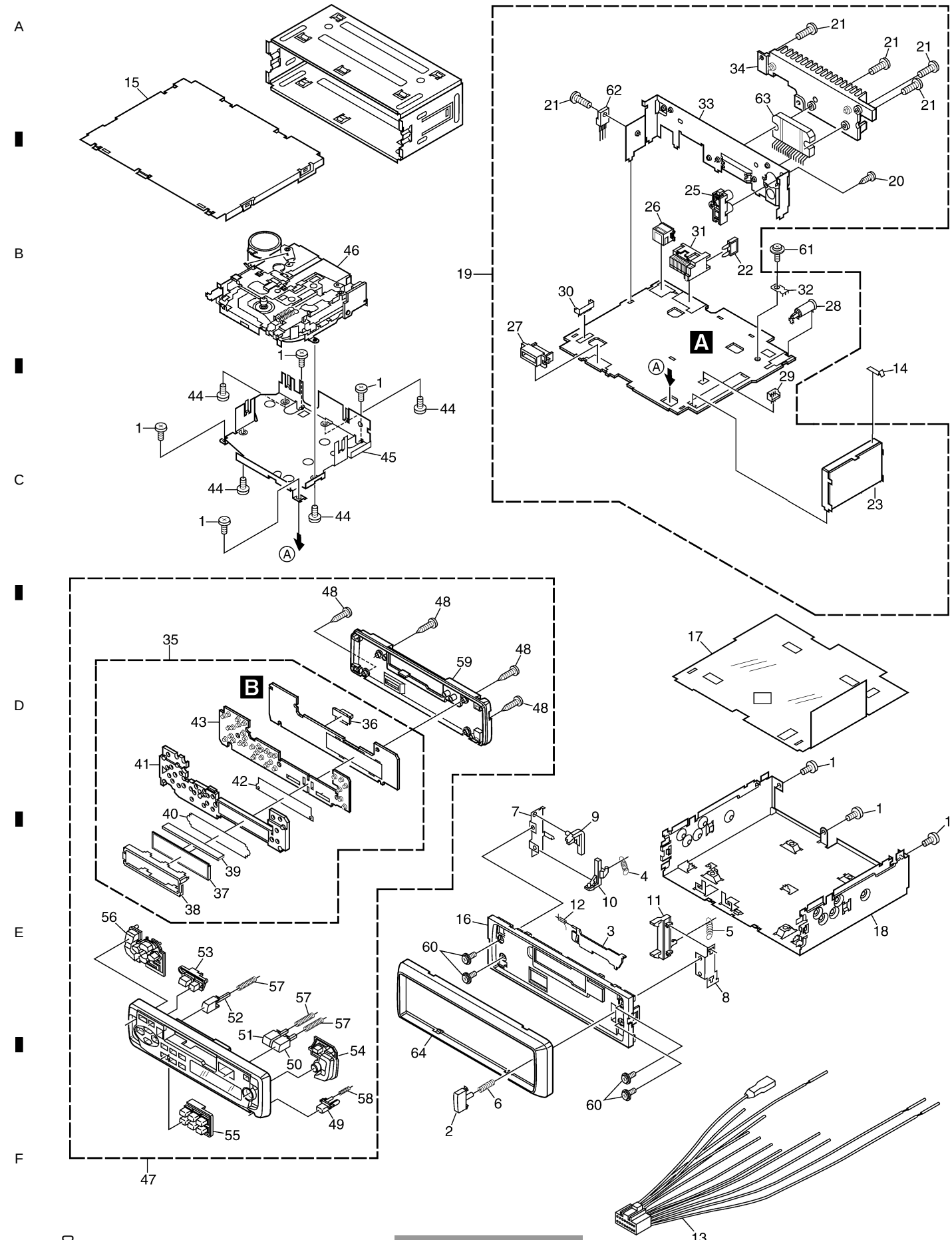
● PACKING(KEH-P2035) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1-1	Owner's Manual	CZR2955
	1-2	Installation Manual	CZR2956
	2	Contain Box	CZH5596
	3	Cord Assy	CZD2976
	4	Polyethylene Bag	CZE2903
*	5	Accessory Assy	CZE2955
	6	Spring	CBH1650
	7	Handle	CNC5395
	8	Bush	CNV3930
*	9	Polyethylene Bag	CZE2908
	10	Screw Assy	CZE2953
	11	Screw	CBA1002
	12	•••••	
*	13	Polyethylene Bag	CEG-127
	14	Screw	CRZ50P080FMC
	15	Screw	TRZ50P080FMC
	16	Protector	CZH5592
	17	Protector	CZH5591
	18	Carton	CZH5595

● Owner's Manual, Installation Manual

Model	Part No.	Language
KEH-P2030/XM/UC	CZR2953	English, French, Spanish
	CZR2954	English, French, Spanish
KEH-P2035/XM/ES	CZR2955	English, Spanish, Portuguese(B), Arabic, Traditional chinese
	CZR2956	English, Spanish, Portuguese(B), Arabic, Traditional chinese

2.2 EXTERIOR


A
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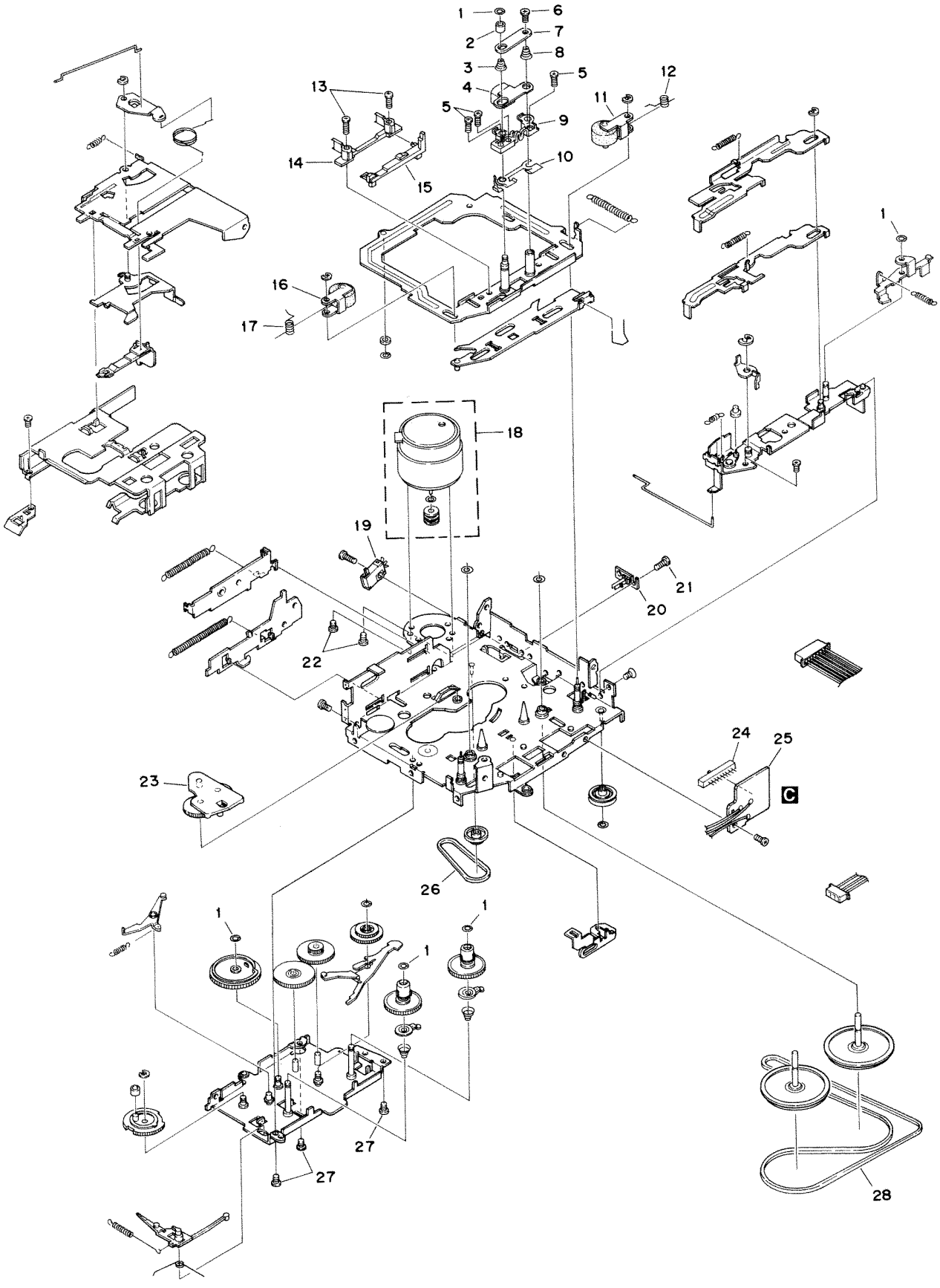
● EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	BSZ26P060FMC
	2	Button	CAC4836
	3	Door	CAT2456
	4	Spring	CBH1834
	5	Spring	CBH1835
	6	Spring	CBH1996
	7	Bracket	CNC6135
	8	Bracket	CNC6791
	9	Arm	CNV4692
	10	Arm	CNV4693
	11	Arm	CNV4728
	12	Spring	CZB2982
	13	Cord Assy	CZD2976
	14	Plate	CZN6730
	15	Case	CZN6739
	16	Panel	CZN6866
	17	Insulator	CZN6836
*	18	Chassis	CZN6735
	19	Tuner Amp Unit(KEH-P2030)	CZW5537
		Tuner Amp Unit(KEH-P2035)	CZW5538
	20	Screw	BPZ26P100FZK
	21	Screw	BSZ26P100FMC
	22	Fuse(10A)	CEK1208
	23	Tuner Unit(TU100)	CZW5534
	24	•••••	
	25	Pin Jack(CN350)	CKB1041
	26	Connector(CN400)	CKS3408
	27	Connector(CN800)	CKS3581
	28	Antenna Jack(CN100)	CKX1056
	29	Connector(CN200)	CZK2945
	30	Connector(CN250)	CZK2946
	31	Connector(CN600)	CZK2951
	32	Connector(CN101)	CZK2954
	33	Rear Chassis	CZN6834
	34	Heat Sink	CZN6835
	35	Keyboard Unit	CZW5543
	36	Connector(CN900)	CKS3580
	37	LCD(LCD900)	CZA5579
	38	Holder	CZN6743
	39	Connector	CZN6745

Mark	No.	Description	Part No.
	40	Light Plate	CZN6760
	41	Lighting Conductor	CZN6846
	42	Rubber	CZN6847
	43	Sheet	CZN6848
	44	Screw	BMZ26P040FMC
	45	Bracket	CZN6738
	46	Mechanism	CZX5514
	47	Detach Grille Assy(KEH-P2030)	CZX5548
		Detach Grille Assy(KEH-P2035)	CZX5549
	48	Screw	BPZ20P100FZK
	49	Button(DETACH)	CAC7870
	50	Button(FF)	CZA5529
	51	Button(REW)	CZA5530
	52	Button(EJECT)	CZA5531
	53	Button(SOURCE)	CZA5566
	54	Button(BTB)	CZA5565
	55	Button(1-6)	CZA5564
	56	Button(VOL)	CZA5563
	57	Spring	CZB2976
	58	Spring	CZB2977
	59	Cover	CZN6753
	60	Screw	IMS20P030FZK
	61	Screw	ISS26P055FUC
	62	Transistor(Q604)	2SD2396
	63	IC(IC500)(KEH-P2030)	TDA7384
		IC(IC500)(KEH-P2035)	TA8277H
	64	Panel	CNS7399

2.3 CASSETTE MECHANISM

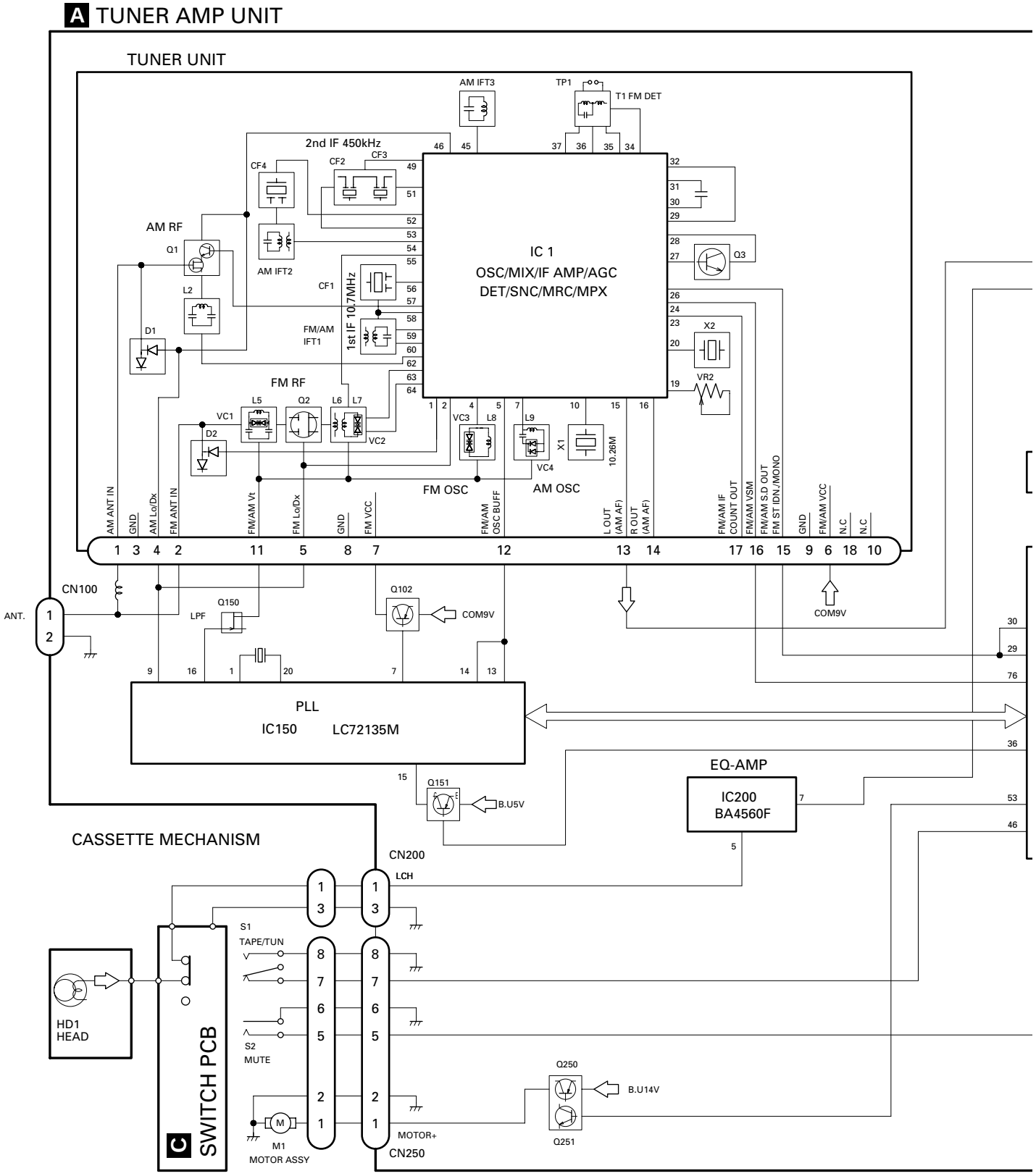


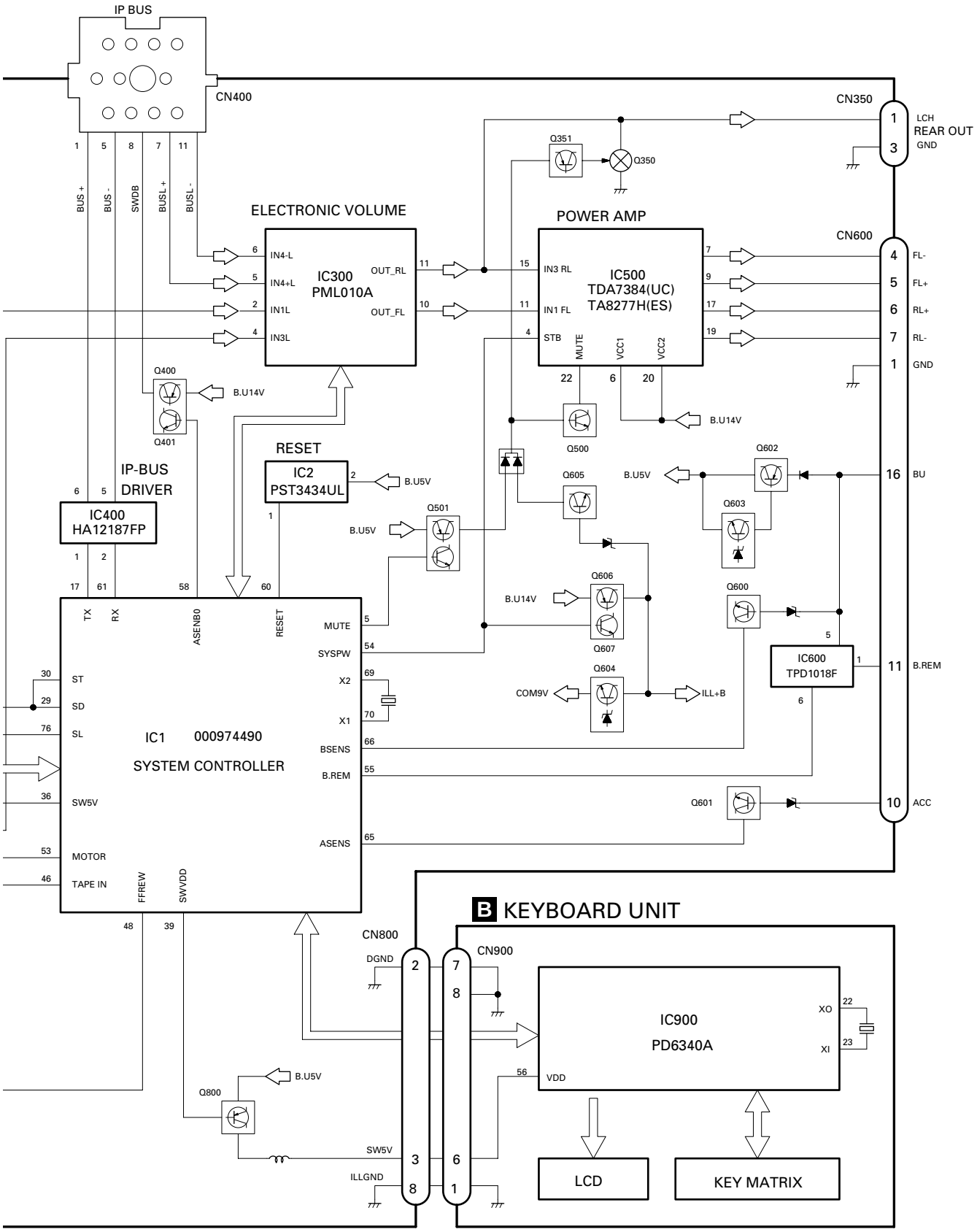
● CASSETTE MECHANISM SECTION PARTS LIST

Mark No.	Description	Part No.
1	Washer	1-0036-5024
2	Roller	1-0363-3018
3	Spring	1-0036-4011
4	Head(HD1)	1-0036-7123
5	Screw	1-0138-5002
6	Screw	2-1012-0040-C2
7	Plate	1-0036-1015
8	Spring	1-0036-4010
9	Arm	10138-2005-3
10	Shim	1-0138-1006
11	Pinch Arm (F) Assy	1-0036-6014
12	Spring	1-0363-4003
13	Screw	2-1032-0070-C2
14	Tape Guide	1-0038-2018
15	Link	1-0363-2006
16	Pinch Arm (R) Assy	1-0036-6013
17	Spring	1-0363-4004
18	Motor Assy (M1)	X-0363-7006
19	Power Switch (S1)	1-0363-7005
20	Mute Switch (S2)	1-0363-7001
21	Screw	213317040-C2
22	Screw	2-1032-0025-C2
23	Arm Assy	X-0363-6003
24	Slide Switch (S3)	1-0363-7002
25	SW PWB	1-0363-7008
26	Belt	1-0036-5018
27	Screw	213820030-C2
28	Belt	1-0036-5004

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

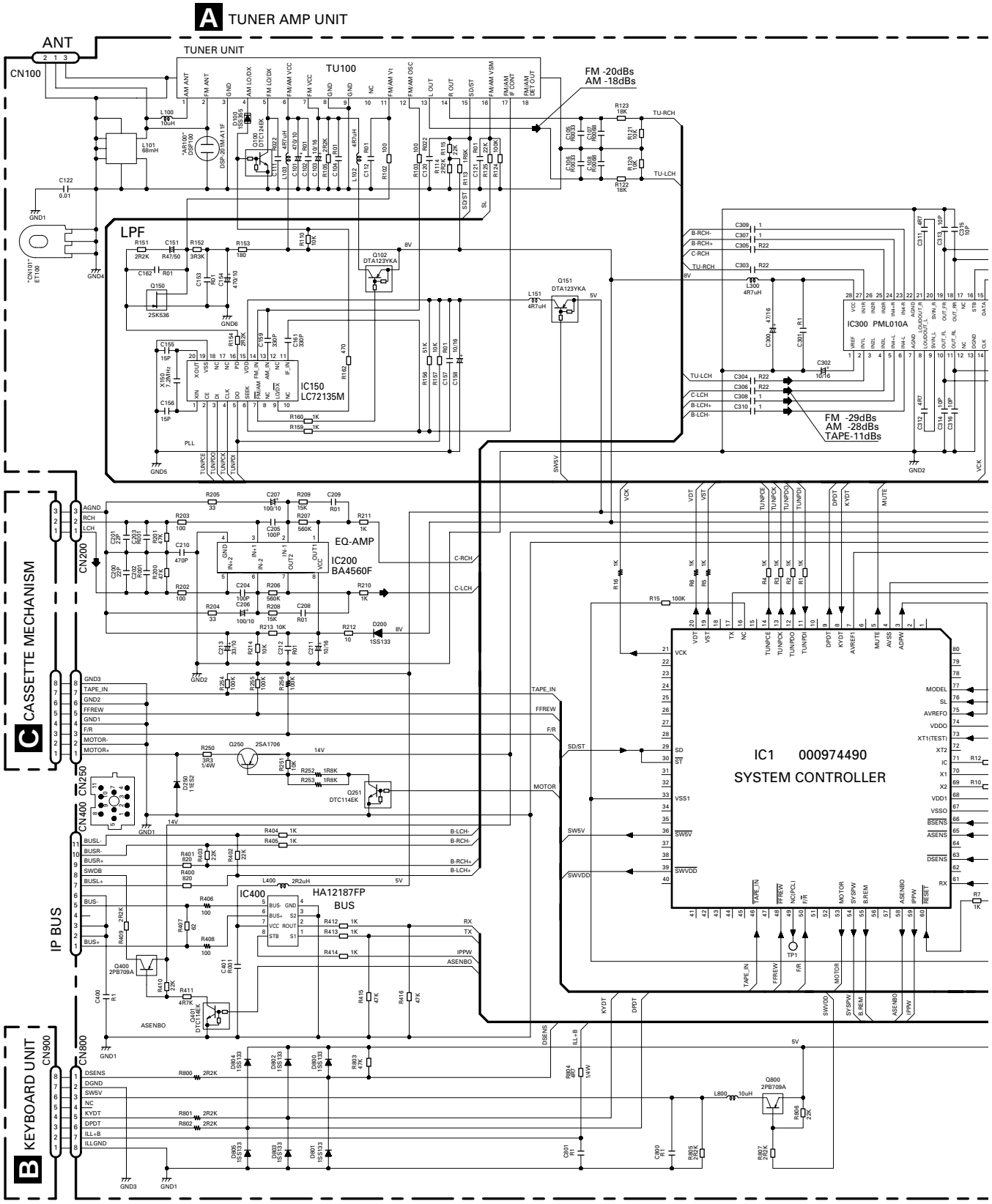
3.1 BLOCK DIAGRAM

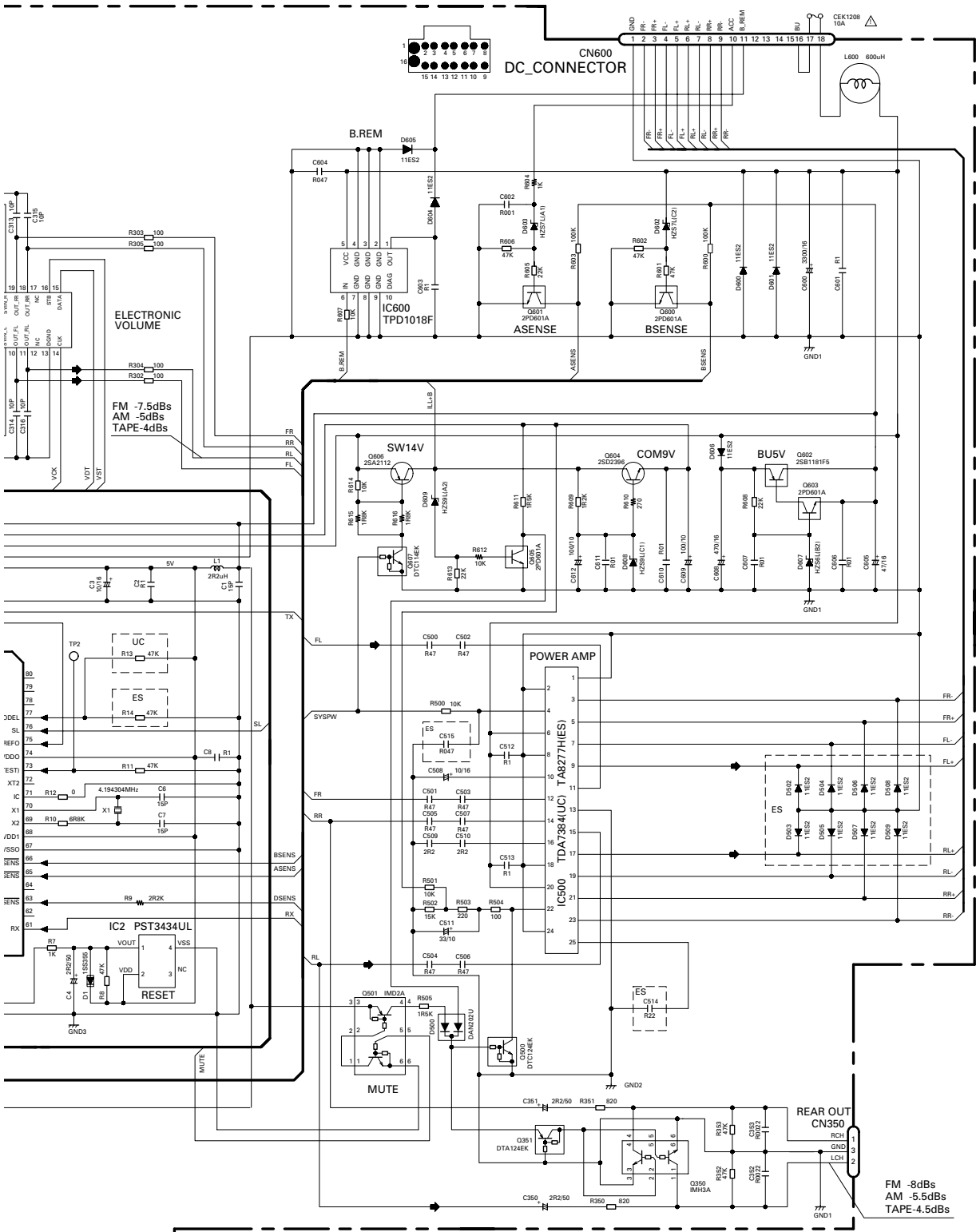



IP BUS
CN400
CN350
LCH
REAR OUT
GND
Q351
Q350
BUS +
BUS -
SWDB
BUSL +
BUSL -
ELECTRONIC VOLUME
IC300
PML010A
IN4-L
IN4+L
IN1L
IN3L
OUT_RL
OUT_FL
POWER AMP
IC500
TDA7384(UC)
TA8277H(ES)
IN3 RL
IN1 FL
STB
MUTE
VCC1
VCC2
CN600
FL-
FL+
RL+
RL-
GND
Q400
Q401
B.U14V
Q500
RESET
IC2
PST3434UL
B.U5V
IP-BUS
DRIVER
IC400
HA12187FP
Q501
Q605
Q602
Q603
BU
Q606
Q607
Q600
IC600
TPD1018F
B.REM
Q604
COM9V
ILL+B
Q601
ACC
TX
RX
ASENB0
RESET
ST
SD
SL
SW5V
MOTOR
TAPE IN
FFREW
SWVDD
SYSPW
X2
X1
BSENS
ASENS
IC1 000974490
SYSTEM CONTROLLER
B KEYBOARD UNIT
CN800
CN900
DGND
IC900
PD6340A
XO
XI
VDD
Q800
SW5V
ILLGND
LCD
KEY MATRIX

3.2 OVERALL CONNECTION DIAGRAM

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



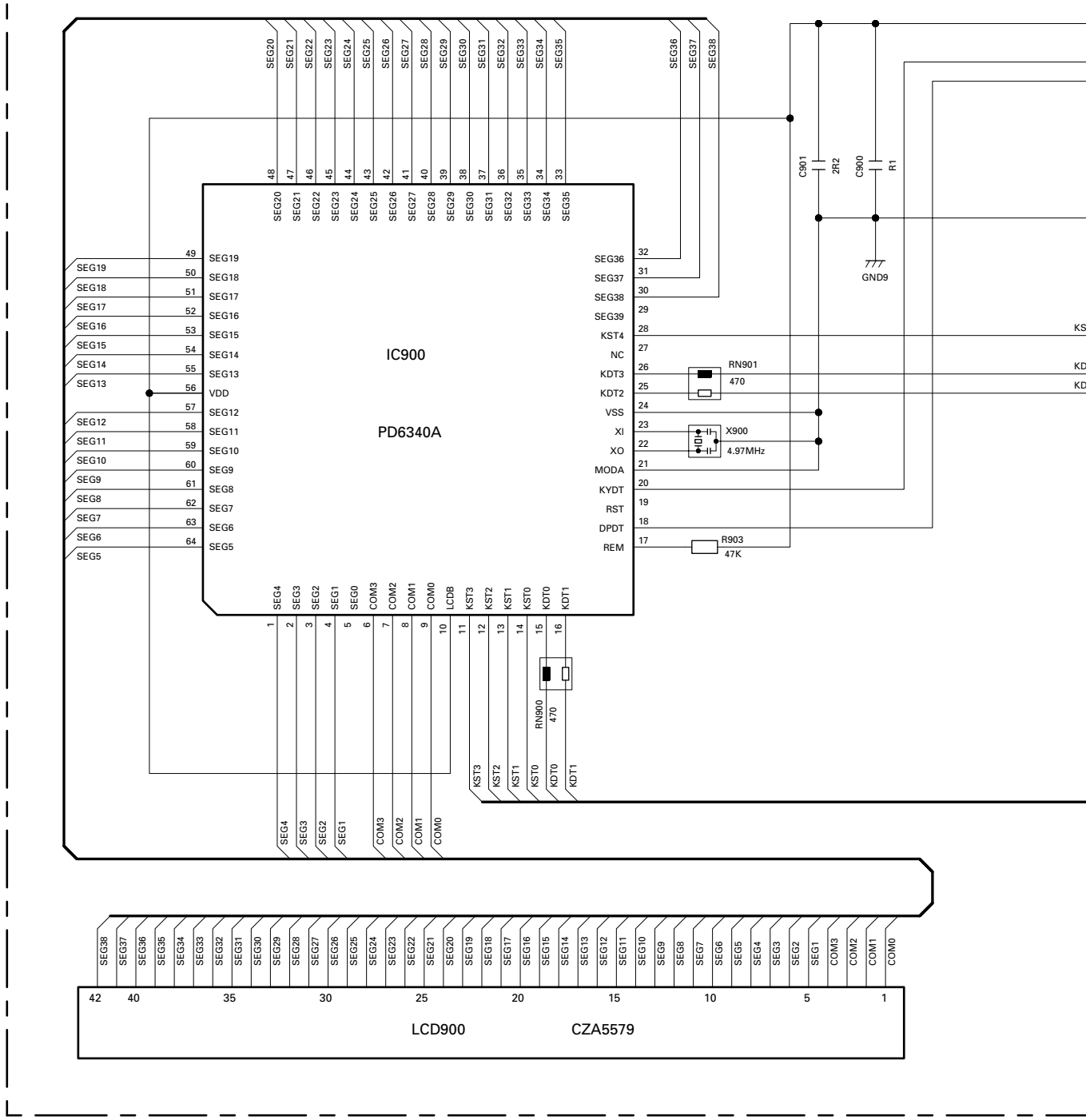


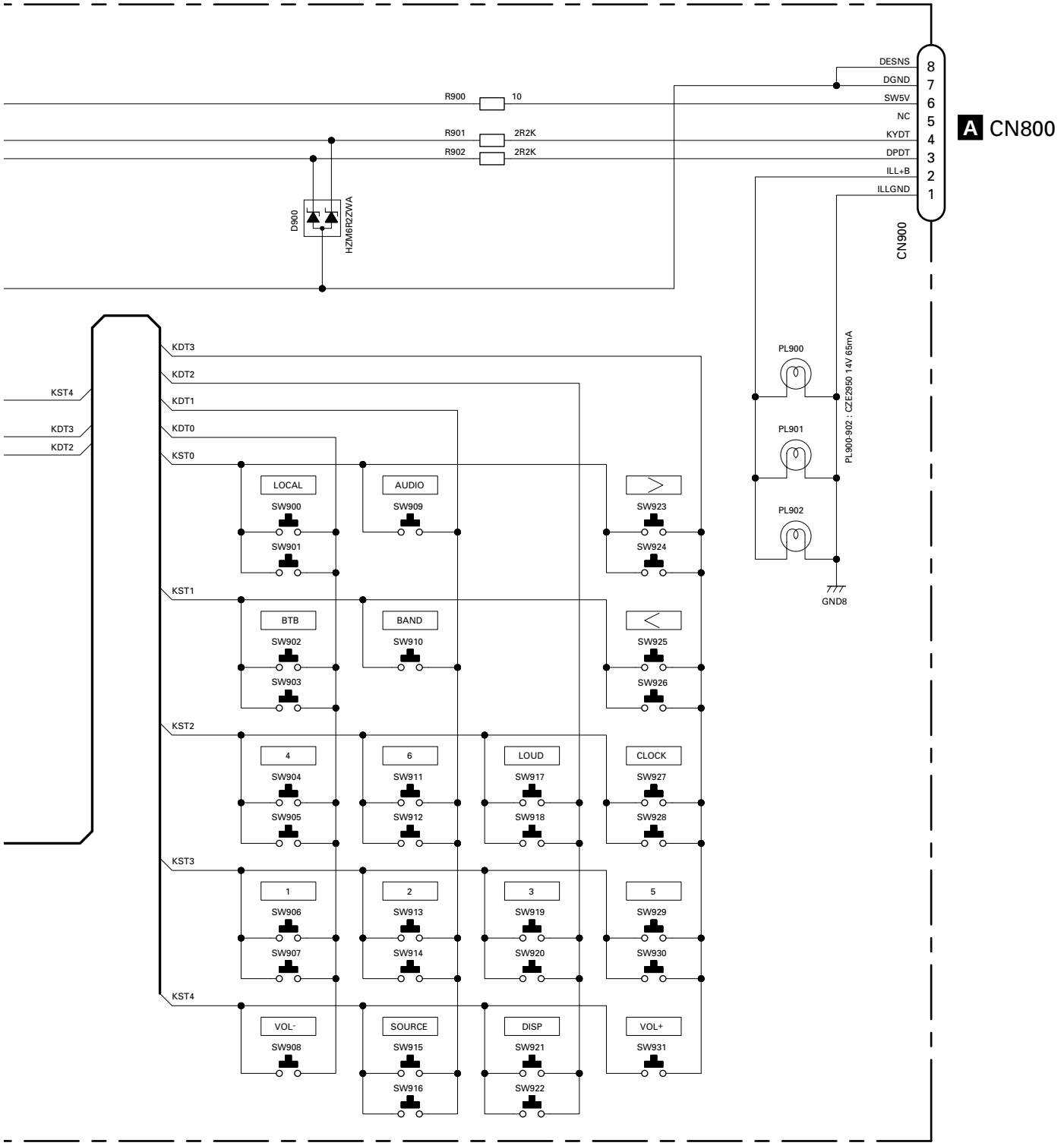
NOTE : Decimal points for resistor and capacitor fixed values are expressed as :
2.2→2R2
0.022→R022

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

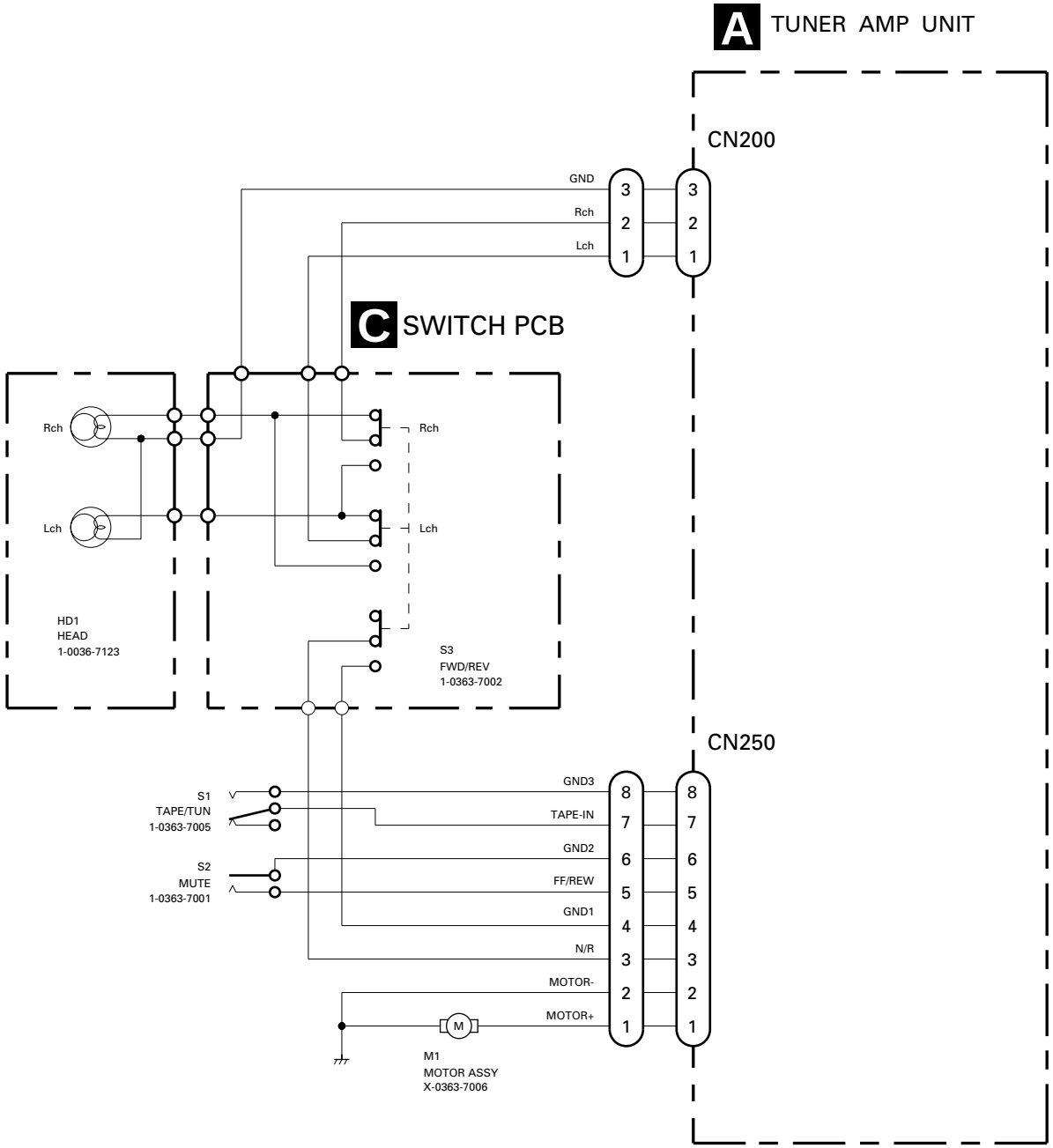
3.3 KEYBOARD UNIT

B KEYBOARD UNIT




DESNS
DGND
SW5V
NC
KYDT
DPDT
ILL+B
ILLGND
8 7 6 5 4 3 2 1
A CN800
CN900
R900 10
R901 2R2K
R902 2R2K
D900
HZM6R2ZWA
PL900
PL901
PL902
PL900-902 : CZE2950 14V 65mA
GND8
KST4
KDT3
KDT2
KDT3
KDT2
KDT1
KDT0
KST0
KST1
KST2
KST3
KST4
LOCAL
AUDIO
SW900
SW909
SW923
SW901
SW924
BTB
BAND
SW902
SW910
SW925
SW903
SW926
4
6
LOUD
CLOCK
SW904
SW911
SW917
SW927
SW905
SW912
SW918
SW928
1
2
3
5
SW906
SW913
SW919
SW929
SW907
SW914
SW920
SW930
VOL-
SOURCE
DISP
VOL+
SW908
SW915
SW921
SW931
SW916
SW922

3.4 CASSETTE MECHANISM



A

B

C

D

E

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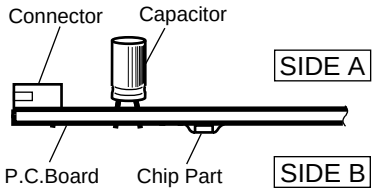
4. PCB CONNECTION DIAGRAM

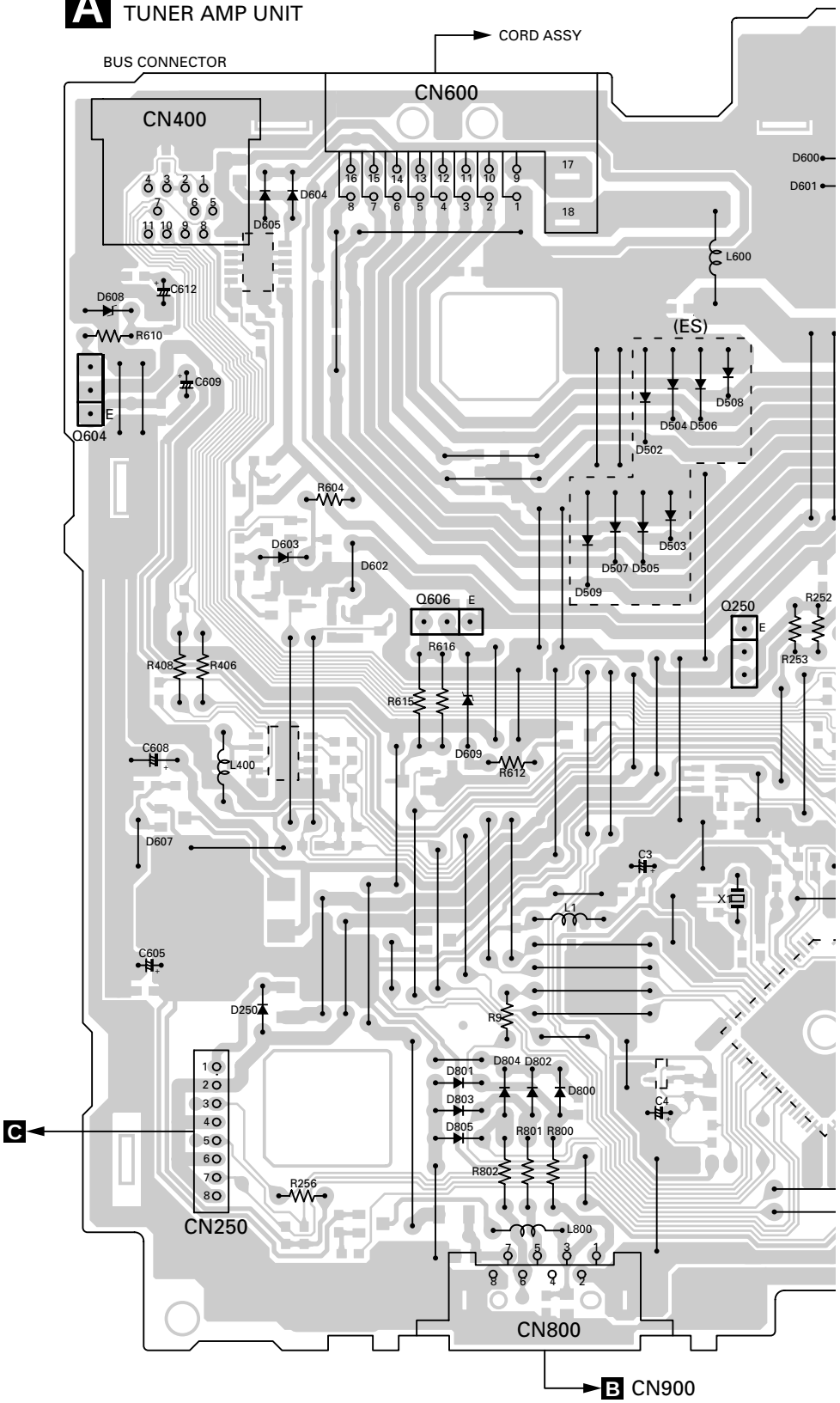
4.1 TUNER AMP UNIT

NOTE FOR PCB DIAGRAMS

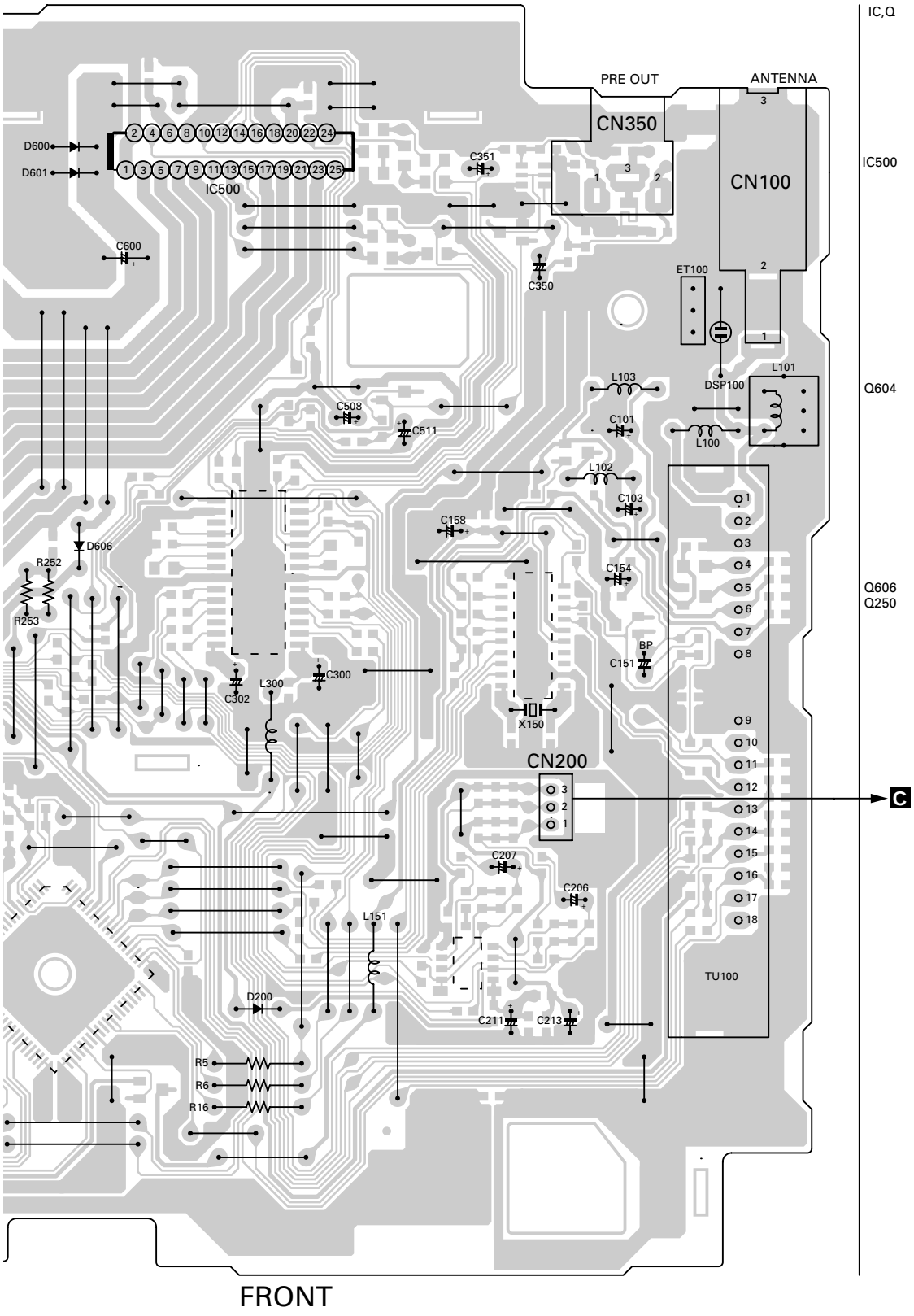
1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



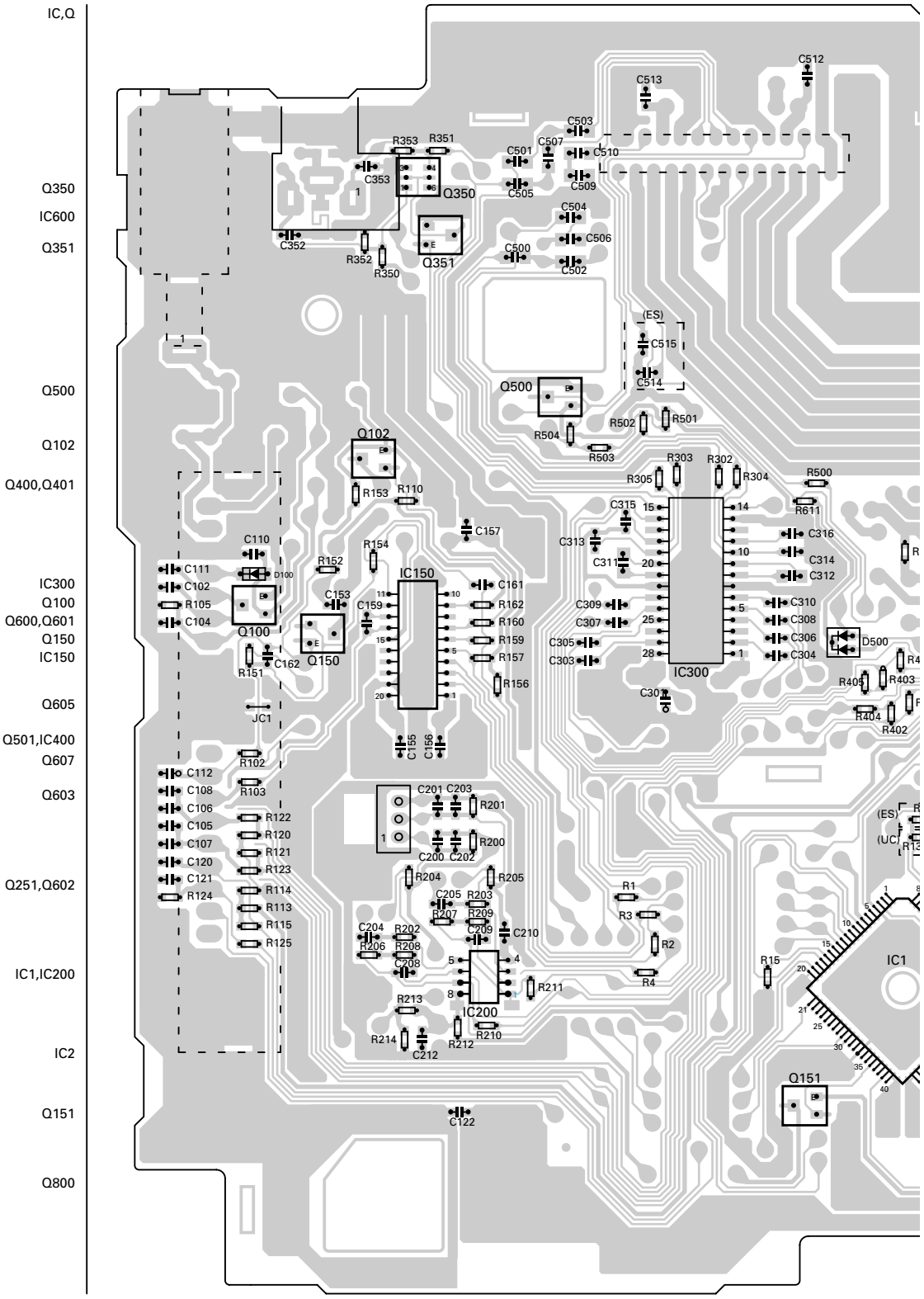
A TUNER AMP UNIT



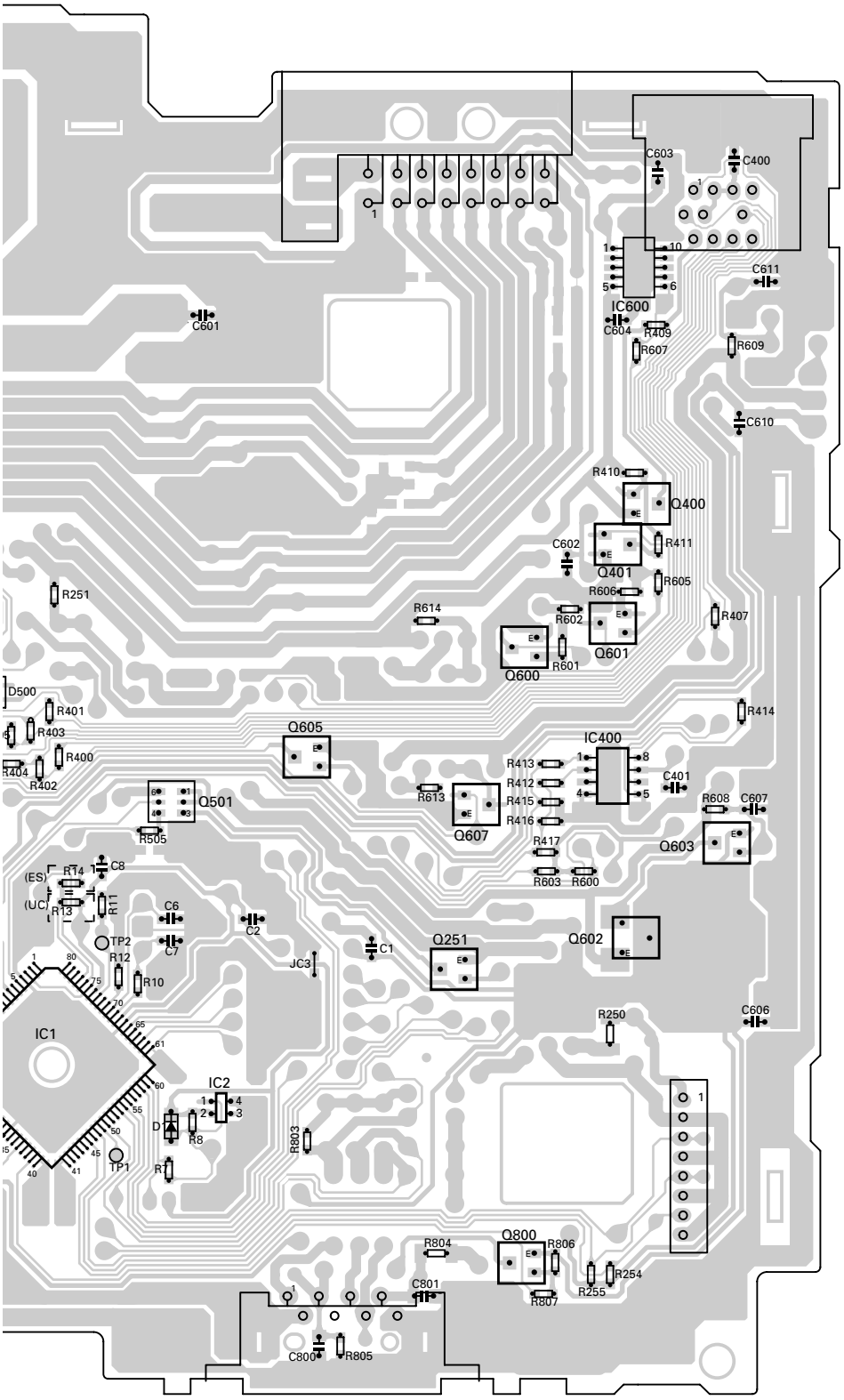
SIDE A


IC,Q
IC500
Q604
Q606
Q250
PRE OUT
ANTENNA
CN350
CN100
D600
D601
IC500
C600
C351
C350
ET100
DSP100
L101
L103
L100
C508
C511
C101
L102
C103
C158
C154
D606
R252
R253
C151
BP
C302
L300
C300
X150
CN200
C207
C206
L151
D200
C211
C213
TU100
R5
R6
R16
FRONT

A TUNER AMP UNIT

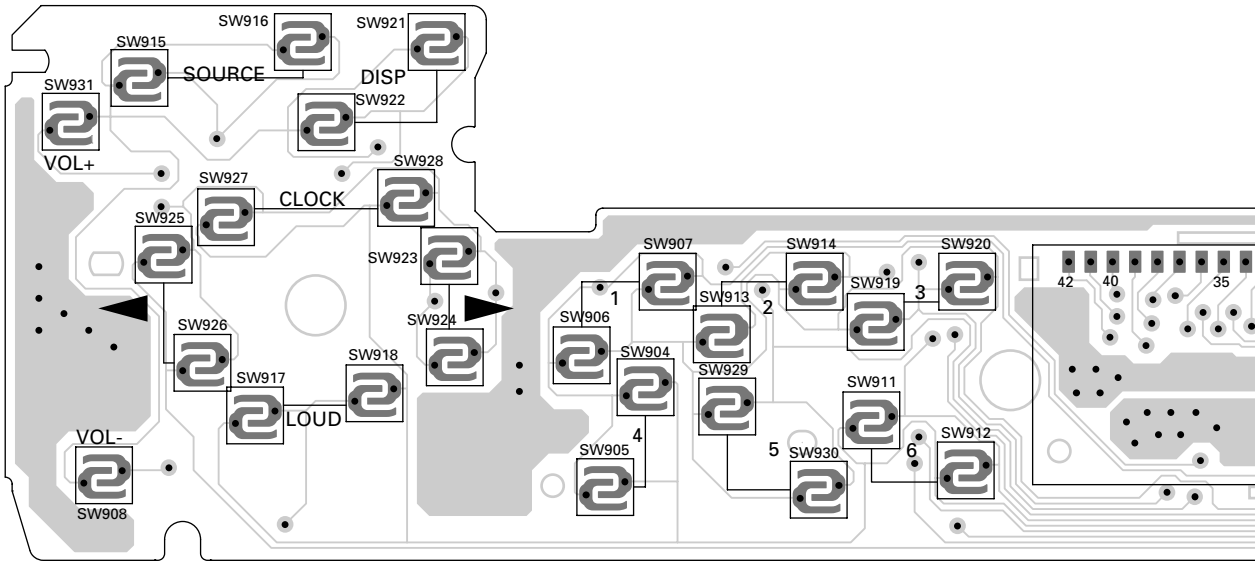


SIDE B

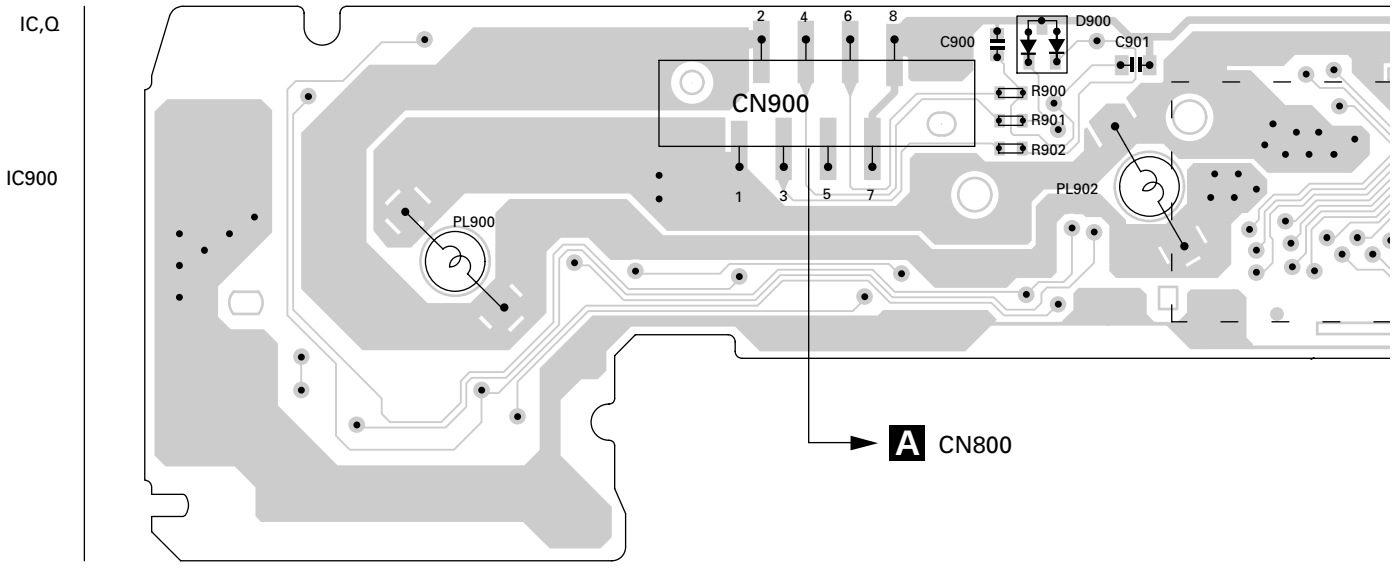

C603
C400
C611
IC600
C604
R409
R607
R609
C610
R410
Q400
C602
R411
Q401
R605
R606
R614
R602
R407
Q601
Q600
R601
D500
R401
R403
R400
R404
R402
Q605
R414
IC400
R413
R412
R415
R416
C401
R608
C607
Q501
R505
R613
Q607
R417
Q603
R603
R600
C8
(ES)
R14
(UC)
R13
R11
C6
C7
C2
TP2
R12
R10
C1
Q251
JC3
Q602
R250
C606
IC1
IC2
D1
R8
R803
TP1
R1
R804
Q800
R806
R254
R255
R807
C801
C800
R805

4.2 KEYBOARD UNIT

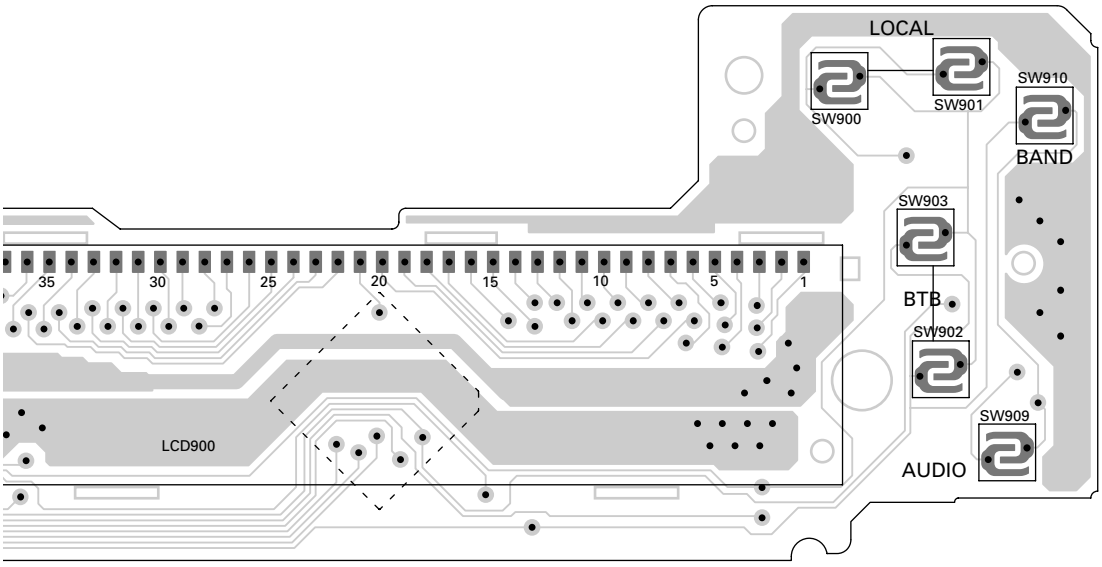
B KEYBOARD UNIT



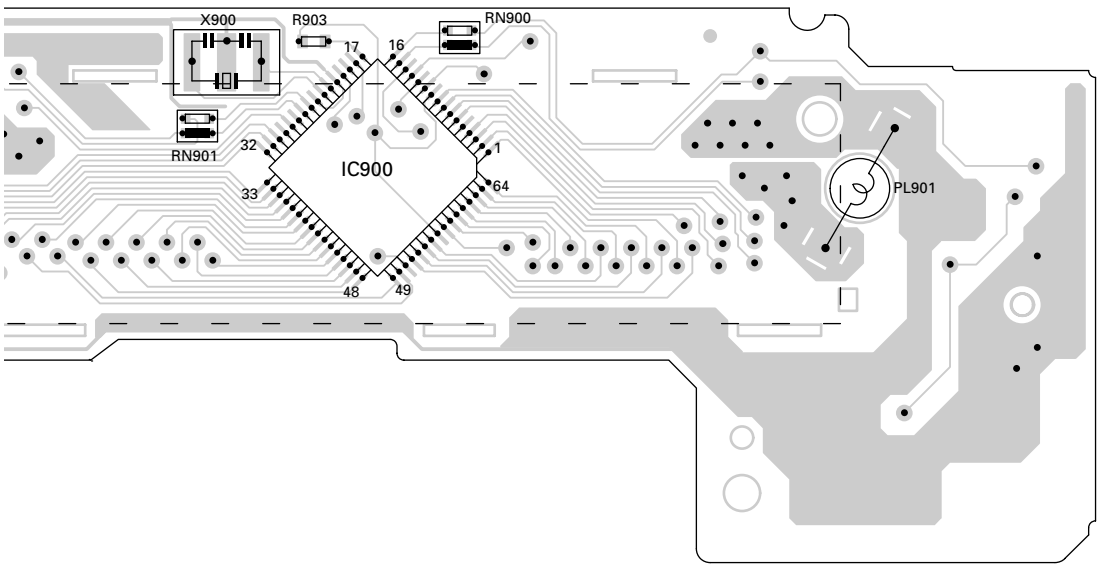
B KEYBOARD UNIT



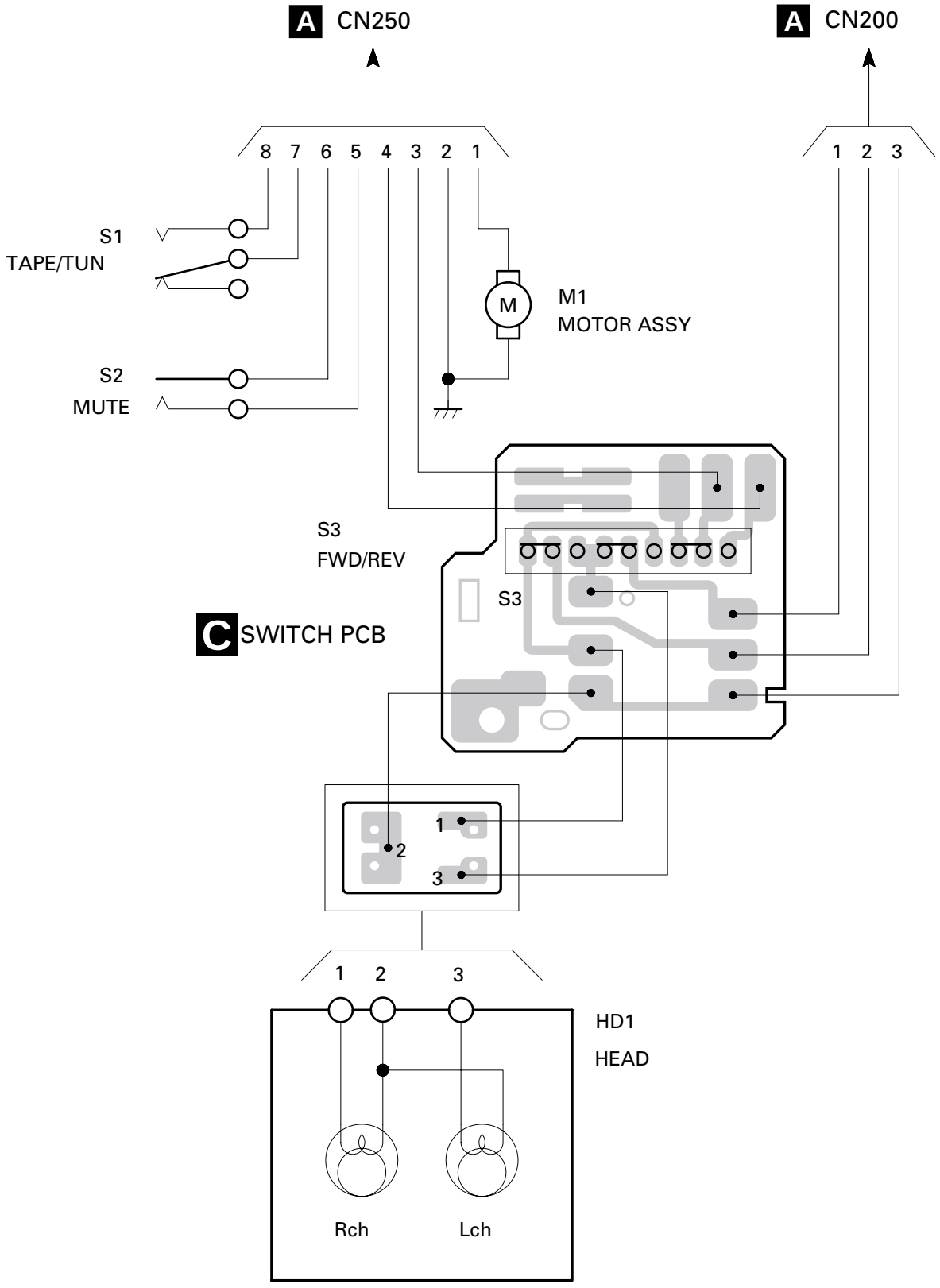
SIDE A


LOCAL
SW900
SW901
SW910
BAND
SW903
BTB
SW902
SW909
AUDIO
35
30
25
20
15
10
5
1
LCD900

SIDE B


X900
R903
RN900
17
16
RN901
32
IC900
1
33
64
48
49
PL901

4.3 CASSETTE MECHANISM



5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○J,RS1/○○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

A Unit Number : CZW5537(KEH-P2030)
Unit Name : Tuner Amp Unit

MISCELLANEOUS

=====Circuit Symbol and No.		===Part Name	Part No.
IC	1	IC	000974490
IC	2	IC	PST3434UL
IC	150	IC	LC72135M
IC	200	IC	BA4560F
IC	300	IC	PML010A
IC	400	IC	HA12187FP
IC	500	IC	TDA7384
IC	600	IC	TPD1018F
Q	100	Transistor	DTC124EK
Q	102	Transistor	DTA123YKA
Q	150	Transistor	2SK536
Q	151	Transistor	DTA123YKA
Q	250	Transistor	2SA1706
Q	251	Transistor	DTC114EK
Q	350	Transistor	IMH3A
Q	351	Transistor	DTA124EK
Q	400	Transistor	2PB709A
Q	401	Transistor	DTC114EK
Q	500	Transistor	DTC124EK
Q	501	Transistor	IMD2A
Q	600	Transistor	2PD601A
Q	601	Transistor	2PD601A
Q	602	Transistor	2SB1181F5
Q	603	Transistor	2PD601A
Q	604	Transistor	2SD2396
Q	605	Transistor	2PD601A
Q	606	Transistor	2SA2112
Q	607	Transistor	DTC114EK
Q	800	Transistor	2PB709A
D	1	Diode	1SS355
D	100	Diode	1SS355
D	200	Diode	1SS133
D	250	Diode	11ES2
D	500	Diode	DAN202U
D	600	Diode	11ES2
D	601	Diode	11ES2
D	602	Diode	HZS7L(C2)
D	603	Diode	HZS7L(A1)
D	604	Diode	11ES2
D	605	Diode	11ES2
D	606	Diode	11ES2
D	607	Diode	HZS6L(B2)
D	608	Diode	HZS9L(C1)
D	609	Diode	HZS9L(A2)
D	800	Diode	1SS133
D	801	Diode	1SS133
D	802	Diode	1SS133
D	803	Diode	1SS133
D	804	Diode	1SS133
D	805	Diode	1SS133

=====Circuit Symbol and No.		===Part Name	Part No.
L	1	Inductor	LAU2R2J
L	100	Ferri-Inductor	LAU100J
L	101	Coil	CZT2930
L	102	Ferri-Inductor	LAU4R7J
L	103	Ferri-Inductor	LAU4R7J
L	151	Ferri-Inductor	LAU4R7J
L	300	Ferri-Inductor	LAU4R7J
L	400	Inductor	LAU2R2J
L	600	Choke Coil 600µH	CTH1221
L	800	Ferri-Inductor	LAU100J
X	1	Crystal Resonator 4.194304MHz	CZS2918
X	150	Crystal Resonator 7.200MHz	CZS2920
TU	100	Tuner Unit	CZW5534
DSP	100	Surge Protector	DSP-201M-A11F

RESISTORS

R	1	RS1/16S102J
R	2	RS1/16S102J
R	3	RS1/16S102J
R	4	RS1/16S102J
R	5	RD1/4PU102J
R	6	RD1/4PU102J
R	7	RS1/16S102J
R	8	RS1/16S473J
R	9	RD1/4PU222J
R	10	RS1/16S682J
R	11	RS1/16S473J
R	12	RS1/16S0R0J
R	13	RS1/16S473J
R	15	RS1/16S104J
R	16	RD1/4PU102J
R	102	RS1/16S101J
R	103	RS1/16S101J
R	105	RS1/16S222J
R	110	RS1/16S103J
R	113	RS1/16S152J
R	114	RS1/16S222J
R	115	RS1/16S223J
R	120	RS1/16S103J
R	121	RS1/16S103J
R	122	RS1/16S183J
R	123	RS1/16S183J
R	124	RS1/16S104J
R	125	RS1/16S223J
R	151	RS1/16S222J
R	152	RS1/16S332J
R	153	RS1/16S181J
R	154	RS1/16S222J
R	156	RS1/16S513J
R	157	RS1/16S103J
R	159	RS1/16S102J
R	160	RS1/16S102J
R	162	RS1/16S471J
R	200	RS1/16S473J
R	201	RS1/16S473J
R	202	RS1/16S101J

=====Circuit Symbol and No.	===Part Name	Part No.
R	203	RS1/16S101J
R	204	RS1/16S330J
R	205	RS1/16S330J
R	206	RS1/16S564J
R	207	RS1/16S564J
R	208	RS1/16S153J
R	209	RS1/16S153J
R	210	RS1/16S102J
R	211	RS1/16S102J
R	212	RS1/16S100J
R	213	RS1/16S103J
R	214	RS1/16S103J
R	250	RS1/8S3R3J
R	251	RS1/16S103J
R	252	RD1/4PU182J
R	253	RD1/4PU182J
R	254	RS1/16S104J
R	255	RS1/16S104J
R	256	RD1/4PU104J
R	302	RS1/16S101J
R	303	RS1/16S101J
R	304	RS1/16S101J
R	305	RS1/16S101J
R	350	RS1/16S821J
R	351	RS1/16S821J
R	352	RS1/16S473J
R	353	RS1/16S473J
R	400	RS1/16S821J
R	401	RS1/16S821J
R	402	RS1/16S223J
R	403	RS1/16S223J
R	404	RS1/16S102J
R	405	RS1/16S102J
R	406	RD1/4PU101J
R	407	RS1/16S620J
R	408	RD1/4PU101J
R	409	RS1/16S222J
R	410	RS1/16S223J
R	411	RS1/16S472J
R	412	RS1/16S102J
R	413	RS1/16S102J
R	414	RS1/16S102J
R	415	RS1/16S473J
R	416	RS1/16S473J
R	500	RS1/16S103J
R	501	RS1/16S103J
R	502	RS1/16S153J
R	503	RS1/16S221J
R	504	RS1/16S101J
R	505	RS1/16S152J
R	600	RS1/16S104J
R	601	RS1/16S473J
R	602	RS1/16S473J
R	603	RS1/16S104J
R	604	RD1/4PU102J
R	605	RS1/16S223J
R	606	RS1/16S473J
R	607	RS1/16S103J
R	608	RS1/16S223J
R	609	RS1/16S122J
R	610	RD1/4PU271J
R	611	RS1/16S152J
R	612	RD1/4PU103J
R	613	RS1/16S223J
R	614	RS1/16S103J

=====Circuit Symbol and No.	===Part Name	Part No.
R	615	RD1/4PU182J
R	616	RD1/4PU182J
R	800	RD1/4PU222J
R	801	RD1/4PU222J
R	802	RD1/4PU222J
R	803	RS1/16S473J
R	804	RS1/8S4R7J
R	805	RS1/16S222J
R	806	RS1/16S223J
R	807	RS1/16S222J
JC	1	RS1/16S0R0J
JC	3	RS1/16S0R0J

CAPACITORS

C	1		CCSRCH150J50
C	2		CKSRYB104K50
C	3		CEAL100M16
C	4		CEAL2R2M50
C	6		CCSRCH150J50
C	7		CCSRCH150J50
C	8		CKSRYB104K50
C	101	470µF/10V	CCH1019
C	102		CKSRYB103K50
C	103		CEAL100M16
C	104		CKSRYB103K50
C	105		CKSRYB332K50
C	106		CKSRYB332K50
C	107		CKSRYB682K50
C	108		CKSRYB682K50
C	111		CKSRYB223K50
C	112		CKSRYB103K50
C	120		CKSRYB223K50
C	121		CKSRYB103K50
C	122		CKSRYB103K50
C	151	0.47µF/10V	CCH-108
C	153		CKSRYB103K50
C	154	470µF/10V	CCH1019
C	155		CCSRCH150J50
C	156		CCSRCH150J50
C	157		CKSRYB103K50
C	158	10µF/16V	CCH1377
C	159		CCSRCH331J50
C	161		CCSRCH331J50
C	162		CKSRYB103K50
C	200		CCSRCH220J50
C	201		CCSRCH220J50
C	202		CKSRYB102K50
C	203		CKSRYB102K50
C	204		CCSRCH101J50
C	205		CCSRCH101J50
C	206		CEAL101M10
C	207		CEAL101M10
C	208		CKSRYB103K50
C	209		CKSRYB103K50
C	210		CCSRCH471J50
C	211		CEAL100M16
C	212		CKSRYB103K50
C	213		CEAL330M10
C	300	47µF/16V	CCH1378
C	301		CKSRYB104K50
C	302	10µF/16V	CCH1377
C	303		CKSRYB224K16
C	304		CKSRYB224K16
C	305		CKSRYB224K16

=====Circuit Symbol and No.		===Part Name	Part No.
C	306		CKSRYB224K16
C	307		CKSRYB105K10
C	308		CKSRYB105K10
C	309		CKSRYB105K10
C	310		CKSRYB105K10
C	311		CKSQYB475K6R3
C	312		CKSQYB475K6R3
C	313		CCSRCH100D50
C	314		CCSRCH100D50
C	315		CCSRCH100D50
C	316		CCSRCH100D50
C	350		CEAL2R2M50
C	351		CEAL2R2M50
C	352		CKSRYB222K50
C	353		CKSRYB222K50
C	400		CKSRYB104K50
C	401		CKSRYB102K50
C	500		CKSQYB474K25
C	501		CKSQYB474K25
C	502		CKSQYB474K25
C	503		CKSQYB474K25
C	504		CKSQYB474K25
C	505		CKSQYB474K25
C	506		CKSQYB474K25
C	507		CKSQYB474K25
C	508		CEAL100M16
C	509		CKSQYB225K10
C	510		CKSQYB225K10
C	511		CEAL330M10
C	512		CKSRYB104K50
C	513		CKSRYB104K50
C	600	3300µF/16V	CCH1018
C	601		CKSRYB104K50
C	602		CKSRYB102K50
C	603		CKSQYB104K50
C	604		CKSRYB473K50
C	605		CEAL470M16
C	606		CKSRYB103K50
C	607		CKSRYB103K50
C	608	470µF/16V	CCH-086
C	609	100µF/10V	CCH1191
C	610		CKSRYB103K50
C	611		CKSRYB103K50
C	612	100µF/10V	CCH1191
C	800		CKSQYB104K50
C	801		CKSQYB104K50

A Unit Number : CZW5538(KEH-P2035)
Unit Name : Tuner Amp Unit

MISCELLANEOUS

IC	1	IC	000974490
IC	2	IC	PST3434UL
IC	150	IC	LC72135M
IC	200	IC	BA4560F
IC	300	IC	PML010A
IC	400	IC	HA12187FP
IC	500	IC	TA8277H
IC	600	IC	TPD1018F
Q	100	Transistor	DTC124EK
Q	102	Transistor	DTA123YKA
Q	150	Transistor	2SK536
Q	151	Transistor	DTA123YKA
Q	250	Transistor	2SA1706
Q	251	Transistor	DTC114EK
Q	350	Transistor	IMH3A

=====Circuit Symbol and No.		===Part Name	Part No.
Q	351	Transistor	DTA124EK
Q	400	Transistor	2PB709A
Q	401	Transistor	DTC114EK
Q	500	Transistor	DTC124EK
Q	501	Transistor	IMD2A
Q	600	Transistor	2PD601A
Q	601	Transistor	2PD601A
Q	602	Transistor	2SB1181F5
Q	603	Transistor	2PD601A
Q	604	Transistor	2SD2396
Q	605	Transistor	2PD601A
Q	606	Transistor	2SA2112
Q	607	Transistor	DTC114EK
Q	800	Transistor	2PB709A
D	1	Diode	1SS355
D	100	Diode	1SS355
D	200	Diode	1SS133
D	250	Diode	11ES2
D	500	Diode	DAN202U
D	502	Diode	11ES2
D	503	Diode	11ES2
D	504	Diode	11ES2
D	505	Diode	11ES2
D	506	Diode	11ES2
D	507	Diode	11ES2
D	508	Diode	11ES2
D	509	Diode	11ES2
D	600	Diode	11ES2
D	601	Diode	11ES2
D	602	Diode	HZS7L(C2)
D	603	Diode	HZS7L(A1)
D	604	Diode	11ES2
D	605	Diode	11ES2
D	606	Diode	11ES2
D	607	Diode	HZS6L(B2)
D	608	Diode	HZS9L(C1)
D	609	Diode	HZS9L(A2)
D	800	Diode	1SS133
D	801	Diode	1SS133
D	802	Diode	1SS133
D	803	Diode	1SS133
D	804	Diode	1SS133
D	805	Diode	1SS133
L	1	Inductor	LAU2R2J
L	100	Ferri-Inductor	LAU100J
L	101	Coil	CZT2930
L	102	Ferri-Inductor	LAU4R7J
L	103	Ferri-Inductor	LAU4R7J
L	151	Ferri-Inductor	LAU4R7J
L	300	Ferri-Inductor	LAU4R7J
L	400	Inductor	LAU2R2J
L	600	Choke Coil 600µH	CTH1221
L	800	Ferri-Inductor	LAU100J
X	1	Crystal Resonator 4.194304MHz	CZS2918
X	150	Crystal Resonator 7.200MHz	CZS2920
TU	100	Tuner Unit	CZW5534
DSP	100	Surge Protector	DSP-201M-A11F

RESISTORS

R	1	RS1/16S102J
R	2	RS1/16S102J
R	3	RS1/16S102J
R	4	RS1/16S102J
R	5	RD1/4PU102J

=====Circuit Symbol and No.	===Part Name	Part No.
R	6	RD1/4PU102J
R	7	RS1/16S102J
R	8	RS1/16S473J
R	9	RD1/4PU222J
R	10	RS1/16S682J
R	11	RS1/16S473J
R	12	RS1/16S0R0J
R	14	RS1/16S473J
R	15	RS1/16S104J
R	16	RD1/4PU102J
R	102	RS1/16S101J
R	103	RS1/16S101J
R	105	RS1/16S222J
R	110	RS1/16S103J
R	113	RS1/16S152J
R	114	RS1/16S222J
R	115	RS1/16S223J
R	120	RS1/16S103J
R	121	RS1/16S103J
R	122	RS1/16S183J
R	123	RS1/16S183J
R	124	RS1/16S104J
R	125	RS1/16S223J
R	151	RS1/16S222J
R	152	RS1/16S332J
R	153	RS1/16S181J
R	154	RS1/16S222J
R	156	RS1/16S513J
R	157	RS1/16S103J
R	159	RS1/16S102J
R	160	RS1/16S102J
R	162	RS1/16S471J
R	200	RS1/16S473J
R	201	RS1/16S473J
R	202	RS1/16S101J
R	203	RS1/16S101J
R	204	RS1/16S330J
R	205	RS1/16S330J
R	206	RS1/16S564J
R	207	RS1/16S564J
R	208	RS1/16S153J
R	209	RS1/16S153J
R	210	RS1/16S102J
R	211	RS1/16S102J
R	212	RS1/16S100J
R	213	RS1/16S103J
R	214	RS1/16S103J
R	250	RS1/8S3R3J
R	251	RS1/16S103J
R	252	RD1/4PU182J
R	253	RD1/4PU182J
R	254	RS1/16S104J
R	255	RS1/16S104J
R	256	RD1/4PU104J
R	302	RS1/16S101J
R	303	RS1/16S101J
R	304	RS1/16S101J
R	305	RS1/16S101J
R	350	RS1/16S821J
R	351	RS1/16S821J
R	352	RS1/16S473J
R	353	RS1/16S473J
R	400	RS1/16S821J
R	401	RS1/16S821J
R	402	RS1/16S223J
R	403	RS1/16S223J
R	404	RS1/16S102J
R	405	RS1/16S102J
R	406	RD1/4PU101J
R	407	RS1/16S620J
R	408	RD1/4PU101J
R	409	RS1/16S222J
R	410	RS1/16S223J
R	411	RS1/16S472J
R	412	RS1/16S102J
R	413	RS1/16S102J
R	414	RS1/16S102J
R	415	RS1/16S473J
R	416	RS1/16S473J
R	500	RS1/16S103J
R	501	RS1/16S103J
R	502	RS1/16S153J
R	503	RS1/16S221J
R	504	RS1/16S101J
R	505	RS1/16S152J
R	600	RS1/16S104J
R	601	RS1/16S473J
R	602	RS1/16S473J
R	603	RS1/16S104J
R	604	RD1/4PU102J
R	605	RS1/16S223J
R	606	RS1/16S473J
R	607	RS1/16S103J
R	608	RS1/16S223J
R	609	RS1/16S122J
R	610	RD1/4PU271J
R	611	RS1/16S152J
R	612	RD1/4PU103J
R	613	RS1/16S223J
R	614	RS1/16S103J
R	615	RD1/4PU182J
R	616	RD1/4PU182J
R	800	RD1/4PU222J
R	801	RD1/4PU222J
R	802	RD1/4PU222J
R	803	RS1/16S473J
R	804	RS1/8S4R7J
R	805	RS1/16S222J
R	806	RS1/16S223J
R	807	RS1/16S222J
JC	1	RS1/16S0R0J
JC	3	RS1/16S0R0J

CAPACITORS

C	1		CCSRCH150J50
C	2		CKSRYB104K50
C	3		CEAL100M16
C	4		CEAL2R2M50
C	6		CCSRCH150J50
C	7		CCSRCH150J50
C	8		CKSRYB104K50
C	101	470µF/10V	CCH1019
C	102		CKSRYB103K50
C	103		CEAL100M16
C	104		CKSRYB103K50
C	105		CKSRYB332K50
C	106		CKSRYB332K50
C	107		CKSRYB682K50
C	108		CKSRYB682K50

=====Circuit Symbol and No.		===Part Name	Part No.
C	111		CKSRYB223K50
C	112		CKSRYB103K50
C	120		CKSRYB223K50
C	121		CKSRYB103K50
C	122		CKSRYB103K50
C	151	0.47µF/10V	CCH-108
C	153		CKSRYB103K50
C	154	470µF/10V	CCH1019
C	155		CCSRCH150J50
C	156		CCSRCH150J50
C	157		CKSRYB103K50
C	158	10µF/16V	CCH1377
C	159		CCSRCH331J50
C	161		CCSRCH331J50
C	162		CKSRYB103K50
C	200		CCSRCH220J50
C	201		CCSRCH220J50
C	202		CKSRYB102K50
C	203		CKSRYB102K50
C	204		CCSRCH101J50
C	205		CCSRCH101J50
C	206		CEAL101M10
C	207		CEAL101M10
C	208		CKSRYB103K50
C	209		CKSRYB103K50
C	210		CCSRCH471J50
C	211		CEAL100M16
C	212		CKSRYB103K50
C	213		CEAL330M10
C	300	47µF/16V	CCH1378
C	301		CKSRYB104K50
C	302	10µF/16V	CCH1377
C	303		CKSRYB224K16
C	304		CKSRYB224K16
C	305		CKSRYB224K16
C	306		CKSRYB224K16
C	307		CKSRYB105K10
C	308		CKSRYB105K10
C	309		CKSRYB105K10
C	310		CKSRYB105K10
C	311		CKSQYB475K6R3
C	312		CKSQYB475K6R3
C	313		CCSRCH100D50
C	314		CCSRCH100D50
C	315		CCSRCH100D50
C	316		CCSRCH100D50
C	350		CEAL2R2M50
C	351		CEAL2R2M50
C	352		CKSRYB222K50
C	353		CKSRYB222K50
C	400		CKSRYB104K50
C	401		CKSRYB102K50
C	500		CKSQYB474K25
C	501		CKSQYB474K25
C	502		CKSQYB474K25
C	503		CKSQYB474K25
C	504		CKSQYB474K25
C	505		CKSQYB474K25
C	506		CKSQYB474K25
C	507		CKSQYB474K25

=====Circuit Symbol and No.		===Part Name	Part No.
C	508		CEAL100M16
C	509		CKSQYB225K10
C	510		CKSQYB225K10
C	511		CEAL330M10
C	512		CKSRYB104K50
C	513		CKSRYB104K50
C	514		CKSQYB224K50
C	515		CKSRYB473K50
C	600	3300µF/16V	CCH1018
C	601		CKSRYB104K50
C	602		CKSRYB102K50
C	603		CKSQYB104K50
C	604		CKSRYB473K50
C	605		CEAL470M16
C	606		CKSRYB103K50
C	607		CKSRYB103K50
C	608	470µF/16V	CCH-086
C	609	100µF/10V	CCH1191
C	610		CKSRYB103K50
C	611		CKSRYB103K50
C	612	100µF/10V	CCH1191
C	800		CKSQYB104K50
C	801		CKSQYB104K50

B Unit Number : CZW5543
Unit Name : Keyboard Unit

MISCELLANEOUS

IC	900	IC	PD6340A
D	900	Diode	HZM6R2ZWA
X	900	Ceramic Resonator 4.97MHz	CSS1422
PL	900	Lamp 14V 65mA	CZE2950
PL	901	Lamp 14V 65mA	CZE2950
PL	902	Lamp 14V 65mA	CZE2950
LCD	900	LCD	CZA5579

RESISTORS

R	900	RS1/16S100J
R	901	RS1/16S222J
R	902	RS1/16S222J
R	903	RS1/16S473J
RN	900	RA2S471J
RN	901	RA2S471J

CAPACITORS

C	900	CKSRYB104K50
C	901	CKSQYB225K10

C Unit Number :
Unit Name : Switch PCB

S	3	Slide Switch(FWD/REV)	1-0363-7002

Miscellaneous Parts List

S	1	Power Switch(TAPE/TUN)	1-0363-7005
S	2	Mute Switch(MUTE)	1-0363-7001
HD	1	Head	1-0036-7123
M	1	Motor Assy	X-0363-7006

6. ADJUSTMENT

There is no information to be shown in this chapter.

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 DISASSEMBLY

● **Removing the Case (not shown)**

1. Remove the Case.

● **Removing the Cassette Mechanism (Fig.1)**

1 Remove the four screws.

Disconnect the connector and then remove the Cassette Mechanism .

● **Removing the Grille Assy (Fig.1)**

2 Release the two latches and then remove the Grille Assy.

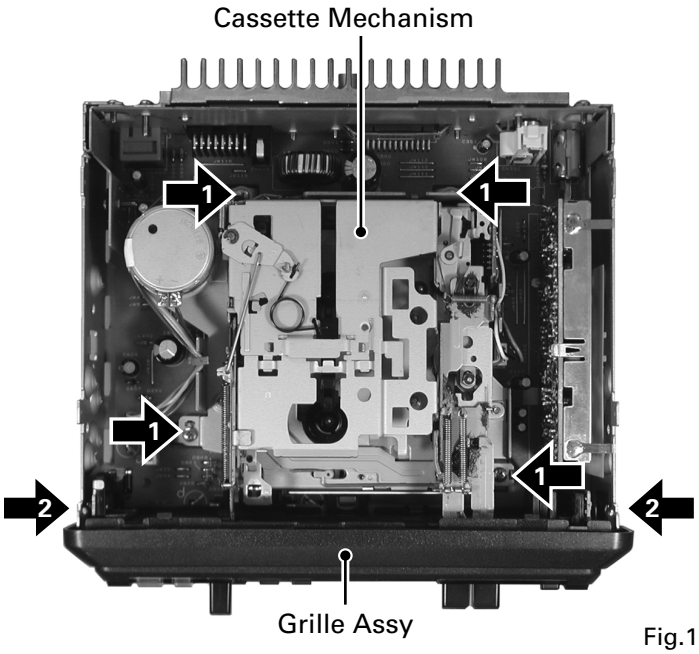


Fig.1

● **Removing the Tuner Amp Unit (Fig.2)**

1 Remove the three screws.

2 Straight the tabs at five locations indicated.

3 Remove the screw and then remove the Tuner Amp Unit.

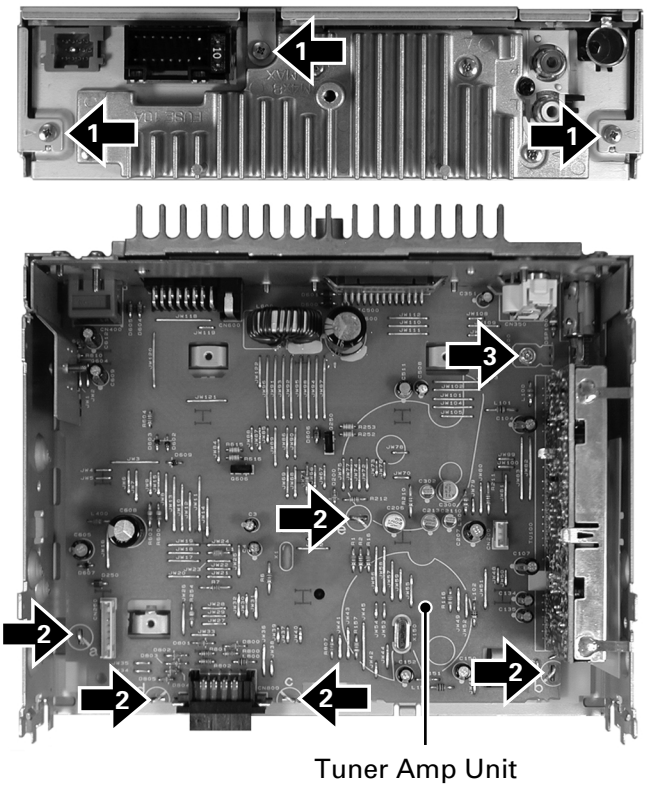
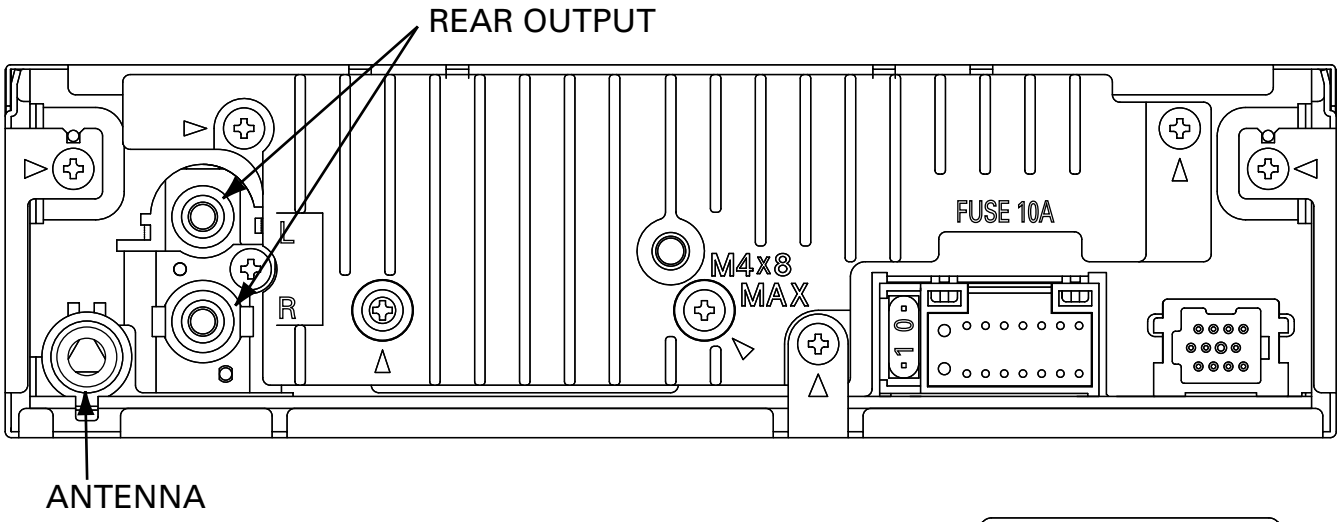
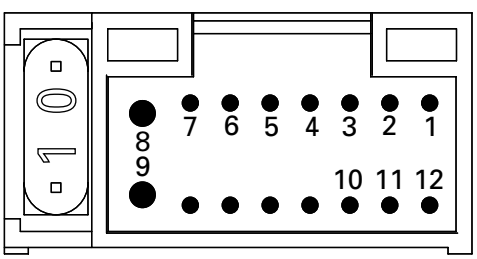
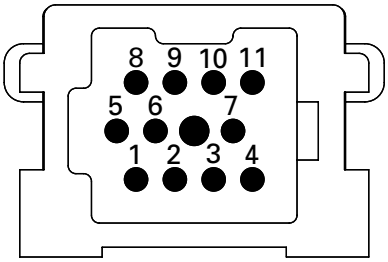


Fig.2

7.1.2 CONNECTOR FUNCTION DESCRIPTION







1	RR+
2	RL-
3	RL+
4	FL+
5	FL-
6	FR+
7	FR-
8	GND
9	BACK UP
10	B.REMOTE
11	ACC
12	RR-

1	BUS+
2	GND
3	GND
4	NC
5	BUS-
6	GND
7	BUS+ INPUT
8	ASENB
9	BUS R+ INPUT
10	BUS R- INPUT
11	BUS L- INPUT

7.2 PARTS

7.2.1 IC

●Pin Functions(000974490)

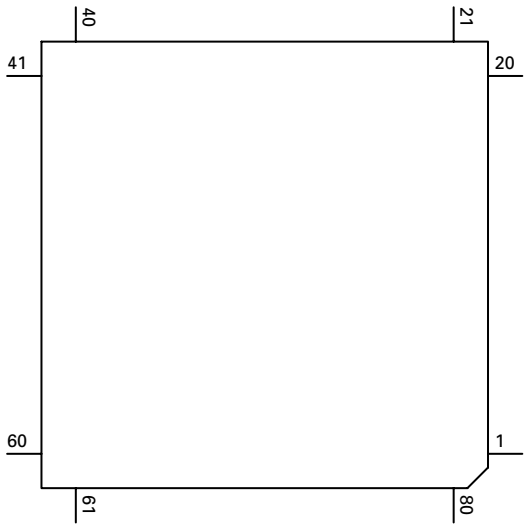
Pin No.	Pin Name	I/O	Format	Function and Operation
1,2	NC			Not used
3	ADPW	O	C	A/D converter power supply control output
4	AVSS			GND
5	MUTE	O	C	System mute output
6	NC			Not used
7	AVREF1	I		D/A converter reference voltage terminal
8	KYDT	I		Key data input
9	DPDT	O	C	Display data output
10	NC			Not used
11	TUNPDI	I		PLL IC data input
12	TUNPDO	O	C	PLL IC data output
13	TUNPCK	O	C	PLL IC clock output
14	TUNPCE	O	C	PLL IC chip enable output
15-18	NC			Not used
19	VST	O	C	Strobe pulse output for electronic volume
20	VDT	O	C	Data output for electronic volume
21	VCK	O	C	Clock output for electronic volume
22-28	NC			Not used
29	SD	I		SD signal input
30	$\overline{ST}$	I		FM stereo input
31,32	NC			Not used
33	VSS1			GND
34,35	NC			Not used
36	$\overline{SW5V}$	O	N	PLL IC power supply control output(5V)
37	$\overline{FM}$/AM	O	N	FM/AM band select pin"H":AM "L":FM
38	$\overline{TUON}$	O	N	Tuner power supply control output
39	$\overline{SWVDD}$	O	N	Grille power supply control output(5V)
40-45	NC			Not used
46	$\overline{TAPEIN}$	I		Tape insert sense input
47	NC			Not used
48	$\overline{FFREW}$	I		FF/REW sense input
49	PCL	O	C	Clock adjustment output
50	F/$\overline{R}$	I		Tape direction sense input "H":NOR "L":REV
51,52	NC			Not used
53	MOTOR	O	C	Motor control output
54	SYSPW	O	C	System power output
55	B.REM	O	C	B.Remote ON/OFF output
56,57	NC			Not used
58	ASENBO	O	C	Slave power supply control output
59	IPPW	O	C	Power supply conrol output for IP BUS interface IC
60	$\overline{RESET}$	I		Reset input
61,62	NC			Not used
63	$\overline{DSENS}$	I		Grille detach sense input
64	NC			Not used
65	$\overline{ASENS}$	I		ACC power sense input
66	$\overline{BSENS}$	I		Backup power sense input
67	VSS0			GND
68	VDD1			Power supply
69	X2			Crystal oscillator connection pin

Pin No.	Pin Name	I/O	Format	Function and Operation
70	X1	I		Crystal oscillator connection pin
71	IC			(GND)
72	XT2			Not used
73	TESTIN	I		Test program mode input
74	VDD0			Power supply
75	AVREF0	I		A/D converter reference voltage terminal
76	SL	I		Signal level input
77	MODELIN	I		Distinction input (2.0-3.0V)
78-80	NC			Not used

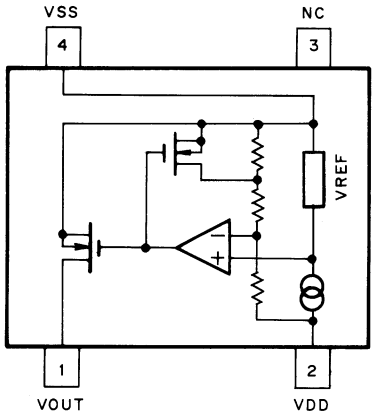
Format	Meaning
C	C MOS
N	N Channel open drain

IC's marked by * are MOS type.
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

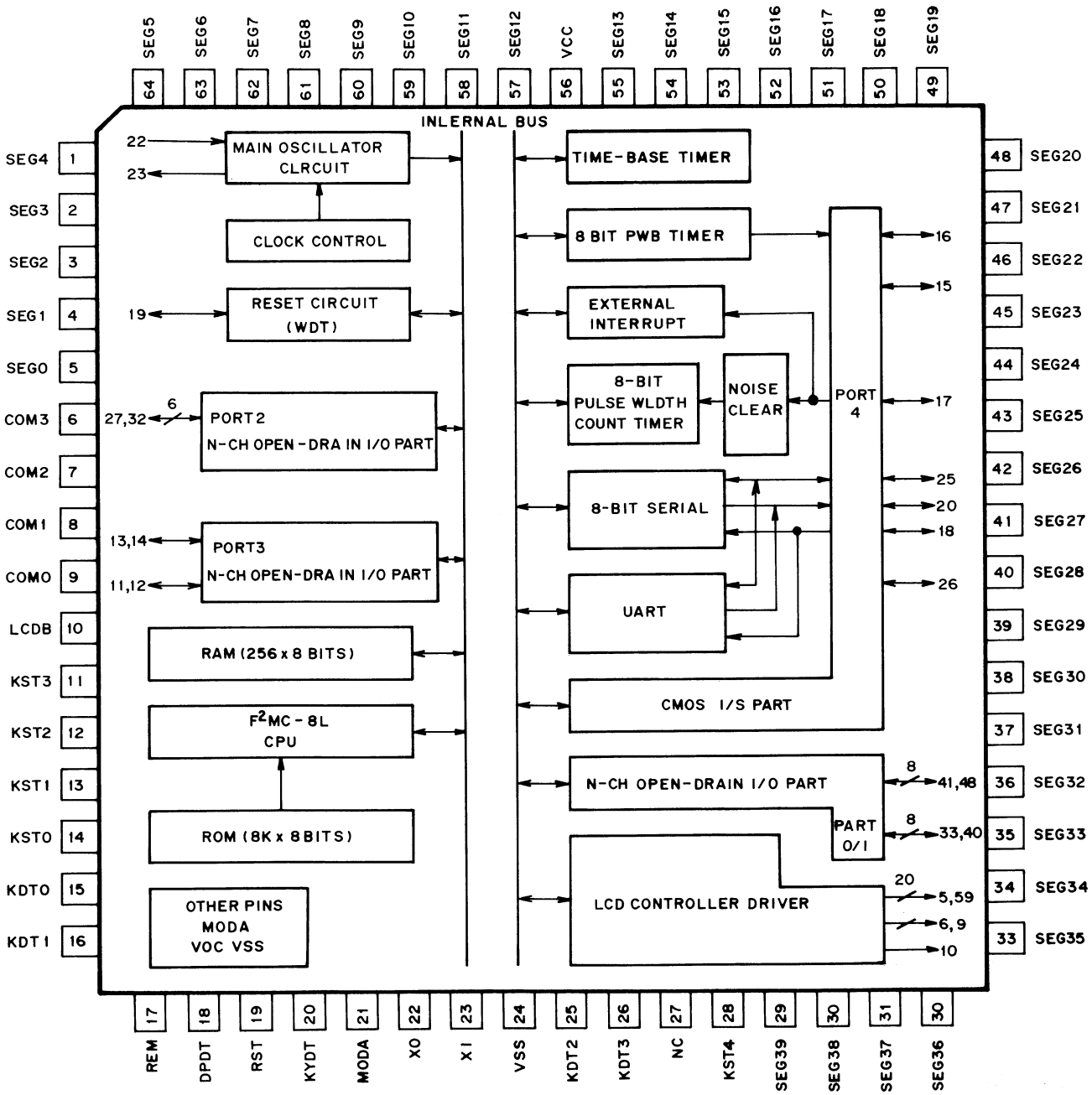
*000974490



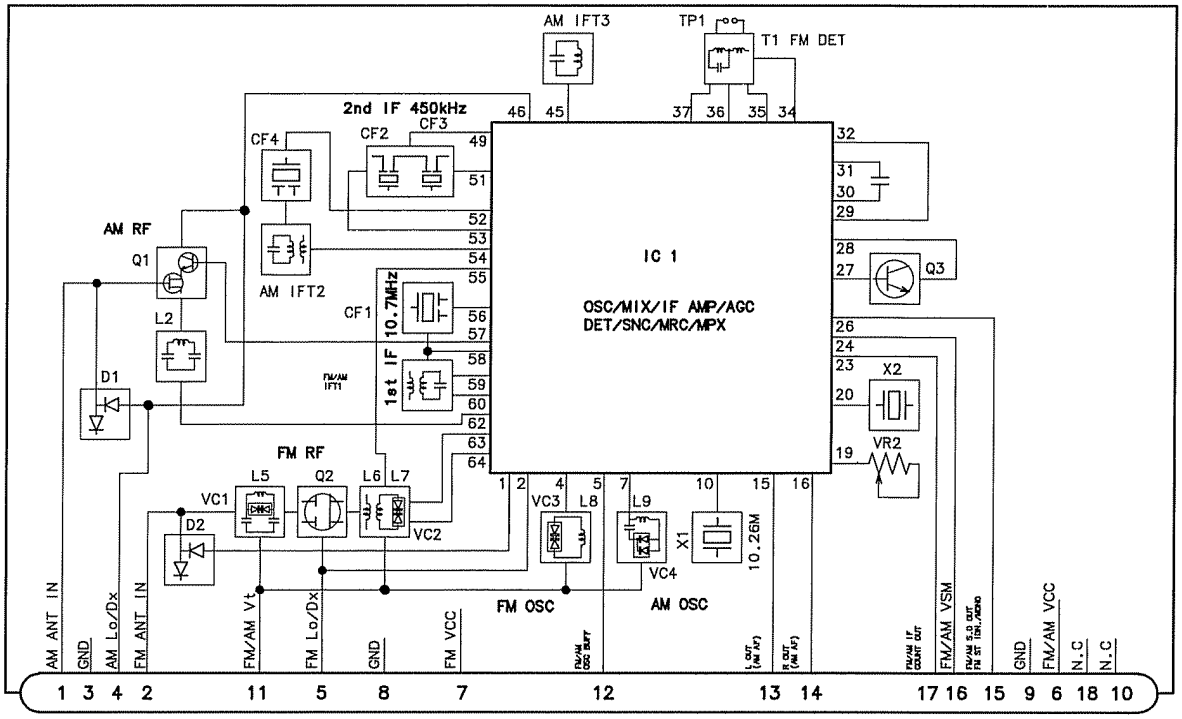
PST3434UL



*PD6340A


SEG5 64
SEG6 63
SEG7 62
SEG8 61
SEG9 60
SEG10 59
SEG11 58
SEG12 57
VCC 56
SEG13 55
SEG14 54
SEG15 53
SEG16 52
SEG17 51
SEG18 50
SEG19 49
INLERNAL BUS
SEG4 1
SEG3 2
SEG2 3
SEG1 4
SEG0 5
COM3 6
COM2 7
COM1 8
COM0 9
LCDB 10
KST3 11
KST2 12
KST1 13
KST0 14
KDT0 15
KDT1 16
22
23
MAIN OSCILLATOR CLRCUIT
CLOCK CONTROL
19
RESET CIRCUIT (WDT)
27,32
6
PORT2 N-CH OPEN-DRA IN I/O PART
13,14
11,12
PORT3 N-CH OPEN-DRA IN I/O PART
RAM (256 x 8 BITS)
F2MC-8L CPU
ROM (8K x 8BITS)
OTHER PINS MODA VOC VSS
TIME-BASE TIMER
8 BIT PWB TIMER
EXTERNAL INTERRUPT
8-BIT PULSE WLDTH COUNT TIMER
NOISE CLEAR
8-BIT SERIAL
UART
CMOS I/S PART
N-CH OPEN-DRAIN I/O PART
PART O/I
LCD CONTROLLER DRIVER
PORT 4
16
15
17
25
20
18
26
8
41,48
8
33,40
20
5,59
6,9
10
48 SEG20
47 SEG21
46 SEG22
45 SEG23
44 SEG24
43 SEG25
42 SEG26
41 SEG27
40 SEG28
39 SEG29
38 SEG30
37 SEG31
36 SEG32
35 SEG33
34 SEG34
33 SEG35
REM 17
DPDT 18
RST 19
KYDT 20
MODA 21
XO 22
XI 23
VSS 24
KDT2 25
KDT3 26
NC 27
KST4 28
SEG39 29
SEG38 30
SEG37 31
SEG36 30

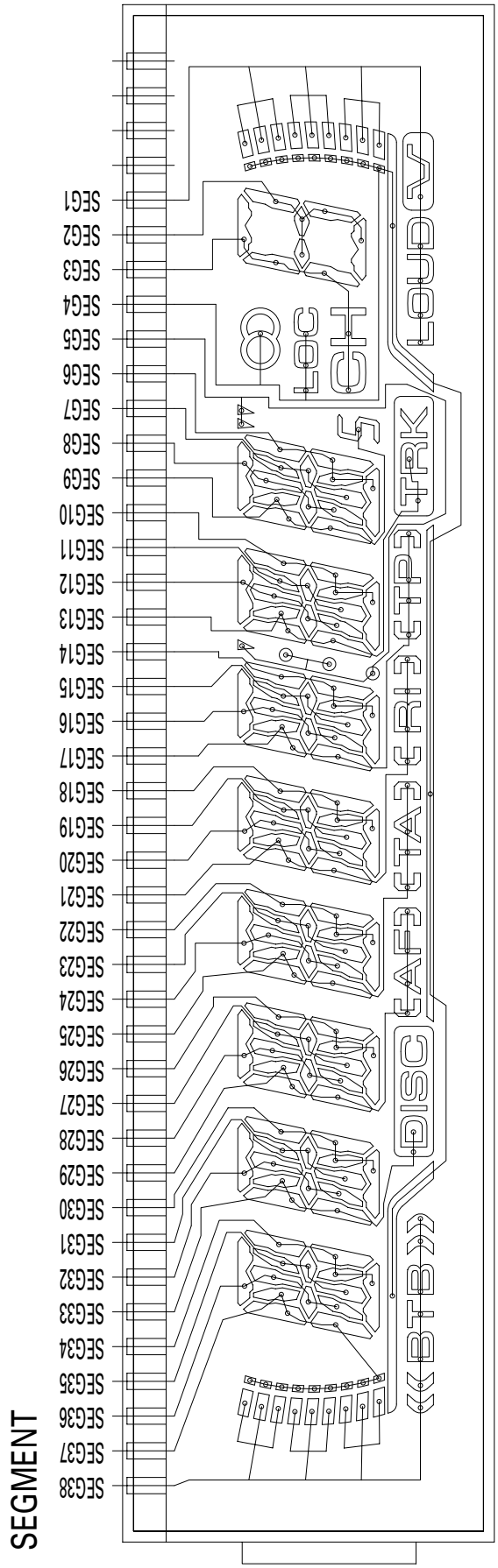
● Tuner Unit(CZW5534)

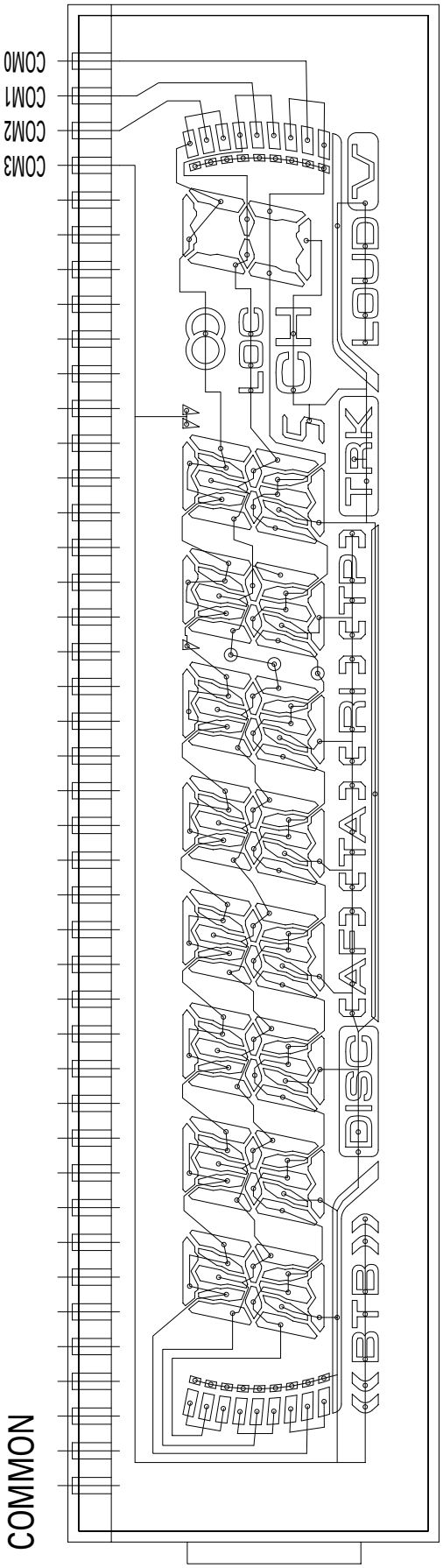


No.	Symbol	I/O	Explain	
1	AM ANT IN	I	AM antenna input	Hight impedance. Connect to the antenna through an antenna circuit of receiver set.
2	FM ANT IN	I	FM antenna input	75Ω . Surge absober is necessary.
3	GND		RF ground	Ground for the antenna section.
4	AM Lo/Dx	I	AM local /distance	Lo: 5V / Dx: open
5	FM Lo/Dx	I	FM local / distance	Lo: ground / Dx: open
6	FM/AM VCC		FM / AM power supply	FM/AM section power supply. DC +8.2V
7	FM VCC		FM power supply	FM RF and band switch section power supply. DC +8.2V
8	GND		FE ground	Ground for the front end section.
9	GND		FM IF/ AM ground	Ground for the FM IF/AM section.
10	N.C			Not used.
11	FM/AM Vt	I	Tuning voltage	Connect to the PLL circuit.
12	FM/AM OSC BUFF	O	OSC buffer output	Connect to the PLL circuit.
13	L OUT	O	L channel output	FM stereo L-ch signal output or AM audio output.
14	R OUT	O	R channel output	FM stereo R-ch signal output or AM audio output.
15	FM/AM SD OUT	O	Station detector	High when signals are received. To be pulled up +5V at 100kΩ
	FM ST IND/MONO		Stereo indicator out	ON when 16pin SD/IF request normal 0V(seek stop).
16	FM/AM VSM	O	Signal meter output	Received FM/AM signal level (strength) output.
17	FM/AM IF COUNT OUT	I/O	IF count output	ON when signals are received at seeking.
			SD / IF request in	
18	N.C			Not used.

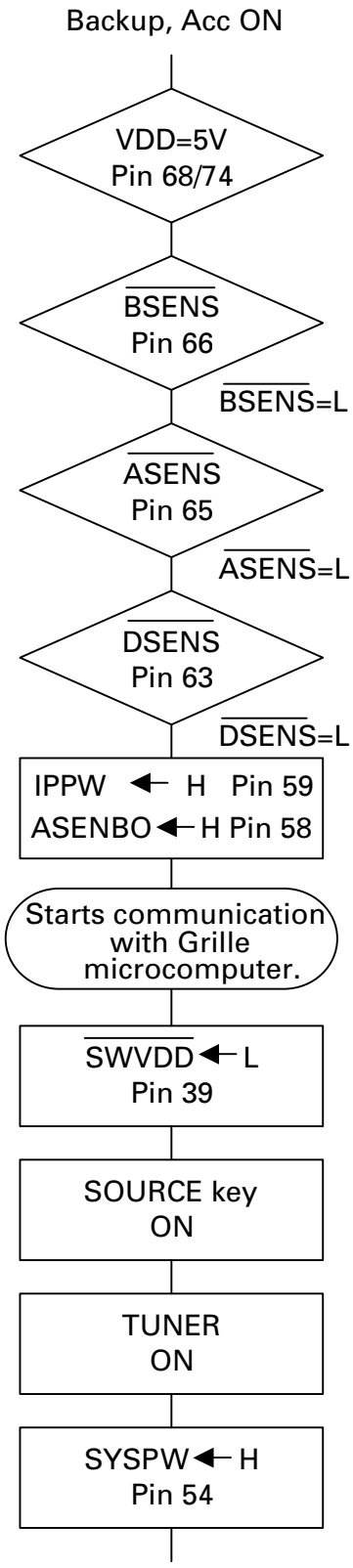
7.2.2 DISPLAY

● **CZA5579**

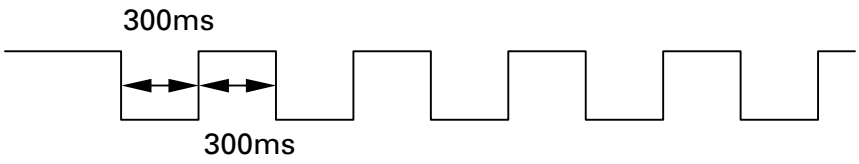




7.3 OPERATIONAL FLOW CHART



Completes power-on operation.
(After that, proceed to each source operation.)



In case of the above signal, the communication with Grille microcomputer may fail.
If the time interval is not 300msec, the oscillator may be defective.

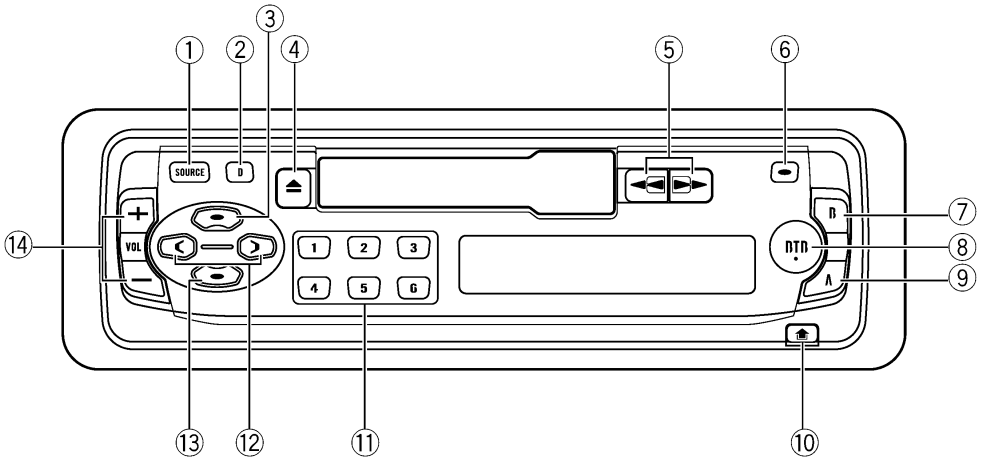
7.4 CLEANING

Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

Portions to be cleaned	Cleaning tools
Cassette heads Pinch rollers Capstans	Cleaning paper : GED-008

8. OPERATIONS

What's What



Head unit

① **SOURCE button**
This unit is turned on by selecting a source.
Press to cycle through all of the available sources.

② **DISPLAY button**
Press to select different displays.
Also, press to control external unit.

③ **CLOCK button**
Press and hold to change the clock display.

④ **TAPE EJECT button**
Press to eject a tape from your cassette player.

⑤ **◄◄/►► buttons**
Press to fast forward or rewind the tape.

⑥ **LOCAL/BSM button**
Press to turn local function on or off when tuner is selected as a source.
Press and hold to turn BSM function on or off when tuner is selected as a source.
Press to turn pause on or off when multi-CD is selected as a source.
Press and hold to turn repeat on or off when multi-CD is selected as a source.
Also, press to control external unit.

⑦ **BAND button**
Press to select among three FM and one AM bands and cancel the control mode of functions.

⑧ **BTB button**
Press to select various BTB (bass treble booster) setting.

⑨ **AUDIO button**
Press to select various sound quality controls.

⑩ **DETACH button**
Press to remove the front panel from the head unit.

⑪ **1–6 buttons**
Press for preset tuning and disc number search when using a multi-CD player.
Also, press to control external unit.

⑫ **◄/► buttons**
Press to do manual seek tuning. Also used for controlling functions.

⑬ **LOUDNESS button**
Press and hold to turn loudness on or off.

⑭ **VOLUME button**
Press to increase or decrease the volume. ▣

Turning the unit on

● **Press SOURCE to turn the unit on.**
When you select a source the unit is turned on. ▣

Selecting a source

You can select a source you want to listen to. To switch to the cassette player, load a cassette tape in this unit .

● **Press SOURCE to select a source.**
Press **SOURCE** repeatedly to switch between the following sources:
Tuner—Cassette player—Multi-CD player—External unit

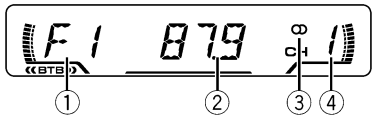
Notes

- In the following cases, the sound source will not change:
  — When a unit corresponding to each source is not connected to this unit.
  — When no cassette is set in this unit.
  — When no magazine is set in the multi-CD player.
- External unit refers to a Pioneer product (such as one available in the future) that, although incompatible as a source, enables control of basic functions by this unit. Only one external unit can be controlled by this unit.
- When this unit's blue/white lead is connected to the car's auto-antenna relay control terminal, the car's antenna extends when this unit's source is turned on. To retract the antenna, turn the source off. ▣

Turning the unit off

● **Press SOURCE and hold until the unit turns off.** ▣

Listening to the radio



① **Band indicator**
Shows which band the radio is tuned to, AM or FM.

② **Frequency indicator**
Shows to which frequency the tuner is tuned.

③ **Stereo (◌) indicator**
Shows that the frequency selected is being broadcast in stereo.

④ **Preset number indicator**
Shows what preset has been selected.

1 Press SOURCE to select the tuner.

2 Use VOLUME to adjust the sound level.
When you press **VOLUME** up/+, the volume is raised and when pressed down/–, the volume is lowered.

3 Press BAND to select a band.
Press **BAND** until the desired band is displayed, **F1**, **F2**, **F3** for FM or **AM**.

4 To perform manual tuning, press ◄ or ► with quick presses.
The frequencies move up or down step by step.

5 To perform seek tuning, press and hold ◄ or ► for about one second and release.
The tuner will scan the frequencies until a broadcast strong enough for good reception is found.

- You can cancel seek tuning by pressing either ◄ or ► with a quick press.
- If you press and hold ◄ or ► you can skip broadcasting stations. Seek tuning starts as soon as you release the buttons.

Note

When the frequency selected is being broadcast in stereo the stereo (◌) indicator will light. ▣

Storing and recalling broadcast frequencies

If you press any of the preset tuning buttons **1–6** you can easily store up to six broadcast frequencies for later recall with the touch of a button.

● **When you find a frequency that you want to store in memory press a preset tuning button 1–6 and hold until the preset number stops flashing.**
The number you have pressed will flash in the preset number indicator and then remain lit. The selected radio station frequency has been stored in memory.
The next time you press the same preset tuning button **1–6** the radio station frequency is recalled from memory.

Note

Up to 18 FM stations, 6 for each of the three FM bands, and 6 AM stations can be stored in memory. ▣

Tuning in strong signals

Local seek tuning lets you tune in only those radio stations with sufficiently strong signals for good reception.

1 Press LOCAL/BSM to turn local seek tuning on.
LOC appears in the display.

2 When you want to return to normal seek tuning, press LOCAL/BSM to turn local seek tuning off. ▣

Storing the strongest broadcast frequencies

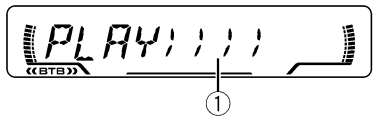
BSM (best stations memory) lets you automatically store the six strongest broadcast frequencies under preset tuning buttons **1–6** and once stored there you can tune in to those frequencies with the touch of a button.

● **Press LOCAL/BSM and hold until the BSM turns on.**
BSM begins to flash. While **BSM** is flashing the six strongest broadcast frequencies will be stored under preset tuning buttons **1–6** in order of their signal strength. When finished, **BSM** stops flashing.
▪ To cancel the storage process, press **LOCAL/BSM**.

Note

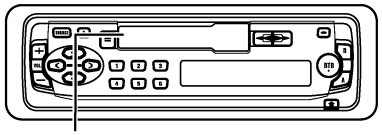
Storing broadcast frequencies with BSM may replace broadcast frequencies you have saved using **1–6**. ▣

Playing a tape



① **Tape direction indicator**
Shows the direction of the tape transport.

1 Insert a cassette tape into the cassette loading slot.
Playback will automatically start.



Cassette loading slot

▪ You can eject a cassette tape by pressing **TAPE EJECT**.

2 After a cassette tape has been inserted, press SOURCE to select the cassette player.
Press **SOURCE** until cassette player is selected as the source.

3 Use VOLUME to adjust the sound level.
When you press **VOLUME** up/+, the volume is raised and when pressed down/–, the volume is lowered.

4 To perform fast forward or rewind, press ◄◄ or ►►.
▪ You can cancel fast forward or rewind by pressing ◄◄ or ►► in the opposite direction lightly.

5 To change the direction of the tape transport, press ◄◄ and ►► simultaneously.

Note

Do not insert anything other than a cassette tape into the cassette loading slot. ▣

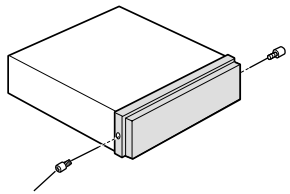
Radio intercept

Radio intercept allows you to listen to the radio during tape fast-forwarding/rewinding.

● **Press 6 to turn radio intercept on or off.** ▣

About the fixing screws for the front panel

If you do not operate the Detaching and Replacing the Front Panel Function, use the supplied fixing screws and fix the front panel to this unit.



Fixing screw
CBA1488(KEH-P2030/XM/UC)
CXX1066(KEH-P2035/XM/ES)

● Connection Diagram